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603

TARATORIN, B.I.

TO

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TARATORIN, B. I.

AUTHORS: Morozov, B.A., Timoshuk, L.T., Candidates of Technical Sciences, and Taratorin, B.I., Engineer. 133-12-12/26

TITLE: An Increase in the Loading Capacity of Stands for Plate Mills (Povysheniye nagruzochnoy sposobnosti stanin listoprokatnykh kletey)

PERIODICAL: Stal', 1957, No.12, pp. 1107 - 1110 (USSR).

ABSTRACT: An investigation of the strength of stands of static and dynamic load carried out by TsNIITMASh and TsNIIChM is described. The distribution of main stresses on the surface of a working stand is shown in Fig.3, the dependence of the working ability of stands of typical and improved designs on the value of a pulsating load - Fig.6, the dependence of deformation of parts of stands of mills 2180(a) and 1680(b) on the positioning of the screw down screw in Fig.7. Conclusions: 1) The weakest spots in housing stand of sheet rolling mills are cross beams, particularly when they possess openings for screw down screws. 2) In order to increase load carrying capacity of stands of operating mills, it is necessary; a) to change the design of the nut of the screw down screw, transferring the supporting surface of the nut to the bottom surface of the cross beam (Fig.4b) or at least into the zone of compressing stresses; b) to increase transition radii in the most stressed points

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at the stand, A, B, V (Fig.4). If the latter is impossible the corresponding places should be work-hardened (treatment with rollers or shot peening). 3) The quality of casting of the cross beam of the stand should be particularly watched. Therefore, when an increase of load on the stand is expected, untreated surfaces of the cross beam in the stretched parts should be machined. 4) The weight of stands should be decreased by about 18% by changing the cross-section area of stands (Fig.4b) by about 30% which does not deteriorate the strength and rigidity of the stand. There are 7 figures and 3 Slavic references.

ASSOCIATION: TsNIITMASh

AVAILABLE: Library of Congress

Card 2/2

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TARATORIN, B. I.: Master Tech Sci (diss) -- "Investigation and computation of deformations and stresses in the back-up plates of hydraulic stamping presses". Moscow, 1958, published by TsBNTI. 23 pp (Glavniiproyekt [Main Designing] of Gosplan USSR, Central Sci Res Inst of Technology and Machinebuilding), 150 copies (KL, No 1, 1959, 121)

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TARATORIN, B.I.

Design of underdie blocks for hydraulic stamping presses. Kuz.-shtam. proizv. 1 no.2:8-13 F '59. (MIRA 12:10)
(Power presses)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATORIN, B.I.

Experimental investigation of deformations and stresses in underplates of hydraulic forging presses. Kuz.-shtam. proizv. 1 no.7:15-19 Jl '59. (MIRA 12:10)

(Power presses) (Strains and stresses)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATORIN, V., inzhener.

Reconstructing the SMK-1 crane. Stroitel' no.5:22 My '57.
(MLRA 10:6)

1. Glavnyy mekhanik Upravleniya zhilishchnogo stroitel'stva Angarska.
(Cranes, derricks, etc.)

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SOV/126-7-4-8/26

AUTHORS: Gulyayev, A.P. and ~~Taratorina, N.V.~~

TITLE: The Effect of the Heating Rate on the Transformations in Steel During Tempering

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 4, pp 544-550 (USSR)

ABSTRACT: Electrotempering, i.e. tempering by passage of electric current, has become a practice widely adopted in industry and this prompted the authors of the present paper to study the effect of the heating rate on the transformations taking place in steels during tempering, a problem which so far has received attention of the Soviet workers only. The present investigation was carried out by means of dilatometric and hardness measurements, X-ray and metallographic analyses and anisometric determination of the quantity of the retained austenite. High-carbon steel U12 and a constructional steel St.45 were used as the experimental materials; for the sake of greater accuracy, silver steel wire was used for the preparation of the test pieces, 100 mm long and 3 mm diameter. Prior to the tempering experiments, the test pieces were quenched

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The Effect of the Heating Rate on the Transformations in Steel During Tempering

from 1100°C (steel U12) or 830°C (steel St.45). The transformations taking place at relatively low heating rates (2.7×10^{-2} to 3.2×10^{-1} °C/sec or 100 to 1200°C/hour), attained during furnace tempering were studied with the aid of an optical dilatometer; those occurring at faster rates of heating (0.7×10^{-2} to 9×10^{2} °C/sec), attained during electrotempering, were investigated in a capacitance dilatometer designed by Panov (Ref 5). Since the working length of the test pieces in the former and latter case was 50 and 75 mm respectively, the curves obtained for the shorter test pieces were re-plotted to give data relating to 75 mm length. In the case of steel St.45, identical dilatometer curves (Δl, mm versus temperature, Δ°C) were obtained at all heating rates between 100 and 1200°C/hour; a curve of this type is shown in Fig 1 (curve 1); curves 2, 3 and 4 in Fig 1 are the dilatometer curves of steel U12 heated at 1200, 300 and 400, and 100 and 200°C/hour, respectively. Fig 2 shows the dilatometer curves of steel U12 heated at (1) 900, (2) 750,

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(3) 490, (4) 320, (5) 107 and (6) 0.1°C/sec. The dilatometer curves of steel St.45 heated at (1) 680, (2) 400, (3) 70 and (4) 0.1°C/sec are plotted in Fig 3. (Curves 6 in Fig 2 and 4 in Fig 3 were obtained with the aid of the optical dilatometer). In the next series of experiments, the carbon content in the α solid solution and the proportion of retained austenite in steel U12 were determined by X-ray diffraction. The test pieces were heated to various temperatures at various rates of heating and quenched in water immediately after switching off the current. For comparison, test pieces heated to each tempering temperature at 0.5°C/sec and held at the temperature for 1.5 hours were also examined. The x-ray diffraction patterns were obtained with Fe - K radiation; from the variation of the distance between the (211) - (112) doublet, the variation of the tetragonality of martensite was calculated and the carbon content in the α solid solution was determined. The carbon content (%) of martensite in steel U12 as a function of the tempering

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temperature (°C) and the heating rate (°C/sec) is shown in Fig 4. The proportion of retained austenite (%) and microhardness (H_V) of steel U12 plotted as functions of the tempering temperature and the heating rate are shown in Fig 5 and 6 respectively. (The lowest curve in each of these three figures was plotted for specimens heated to the tempering temperature at 0.5°C/sec and held at the temperature for 1.5 hour). The proportion of the retained austenite was determined by visual comparison of the intensity of the homologous lines (Nechvolodov method); these data were made more accurate by determining the quentity of the retained austenite with the aid of an anisometer. Regarding the metallographic analysis, no difference in the microstructure due to different rates of heating was observed under the optical microscope in steels tempered below 600°C. The microstructures of steel U12 which after quenching from 1100°C was (a) heated to 600°C at 750°C/sec and (b) tempered at 600°C for 1.5 hours, are shown in Fig 7 (x500). Only with the aid of an electron microscope

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was it possible to show that the microstructure of the tempered steel was, in fact, affected by the heating rate even at low tempering temperatures. The microstructure of steel U12 quenched from 1100°C (as revealed by the electron microscope) is shown in Fig 8 (x1200). The electron microphotographs of the same steel, heated to 200°C at 750°C/sec and heated to 200°C at 0.5°C/sec and held at the temperature for 1.5 hours are reproduced in Fig 9a and b respectively. Fig 10 shows the electron microphotographs of steel U12 which after quenching from 1100°C was (a) heated to 300°C at 750°C/sec, (b) heated to 300°C at 150°C/sec and (v) held at 300°C for 1.5 hours having been brought to this temperature at 0.5°C/sec. The experimental results obtained by the present authors show that increasing the rate of heating results in partial suppression of the first transformation, although the temperature range at which this transformation takes place is significantly shifted only when the rate of heating exceeds about 500°C/sec. At slow rates of heating (0.1°C/sec or less)

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such as are attained during furnace tempering, the first transformation begins at approximately 80°C; this is marked on the dilatometer curve by the point at which the volume (length) of the specimen begins rapidly to decrease (comp Fig 2 and 3). Judging by the dilatometer curves, the first transformation still begins at about 80°C even when the rate of heating is raised to 490°C/sec; when, however, a heating rate of 750°C/sec is employed, the transformation begins at 330-350°C; at the rate of 900°C/sec it starts at 430-450°C. The same effect is revealed by the difference in the carbon content in the α solid solution in steel specimens heated to various temperatures at various rates of heating, although the X-ray analysis gives the beginning of the transformation at temperatures lower than those determined by the dilatometric measurements. While the temperature range of the first transformation is shifted at fast rates of heating only, the degree of decomposition of martensite is affected by the variation of the heating rate throughout the range of heating rates employed in

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the experiments. This is shown clearly by the dilatometer curves, while the X-ray data also indicate that the faster the rate of heating, the lower is the degree of decomposition of martensite. These findings were confirmed by the results of the metallographic analysis: electron microphotographs show that both the quantity of the precipitated carbides and their particle size decrease as the heating rate during tempering increases. Regarding the second transformation, i.e. decomposition of the retained austenite, it occurs at the studied rates of heating, although the positive dilatometric effect (expansion), characteristic for this transformation, is observed only at heating rates not exceeding 100°C/sec. (Compare Fig 1 and 2). Since anisometric measurements of the proportion of the retained austenite in specimens heated to various temperatures at various rates of heating showed that austenite does, in fact, decompose even at heating rates as high as 750°C/sec, it is suggested that the discrepancy between the X-ray and dilatometer data might

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be due to the fact that the retained austenite decomposes only during cooling from the tempering temperature, when comparatively fast rates of heating are employed; this problem, however, requires further study. The dilatometer curves of steel specimens heated at the rates of 750 to 900°C/sec show absence of any volume changes in the 300 to 400°C temperature range which could be taken as an indication that the transformations are completely suppressed in this temperature range; the results of the X-ray analysis, however, show that under these conditions there is a slight decrease in the degree of tetragonality and in the proportion of the retained austenite. It is therefore more likely that at fast rates of heating the transformations are completely suppressed at temperatures up to 200°C, after which both transformations take place simultaneously, the volumetric changes caused by them cancelling each other; when higher temperatures are reached, the first transformation predominates which results in contraction

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The Effect of the Heating Rate on the Transformations in Steel During Tempering

shown by the respective dilatometer curves. There are 10 figures, 1 table and 5 Soviet references.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (The Central Research Institute of Technology and Mechanical Engineering)

SUBMITTED: December 3, 1957

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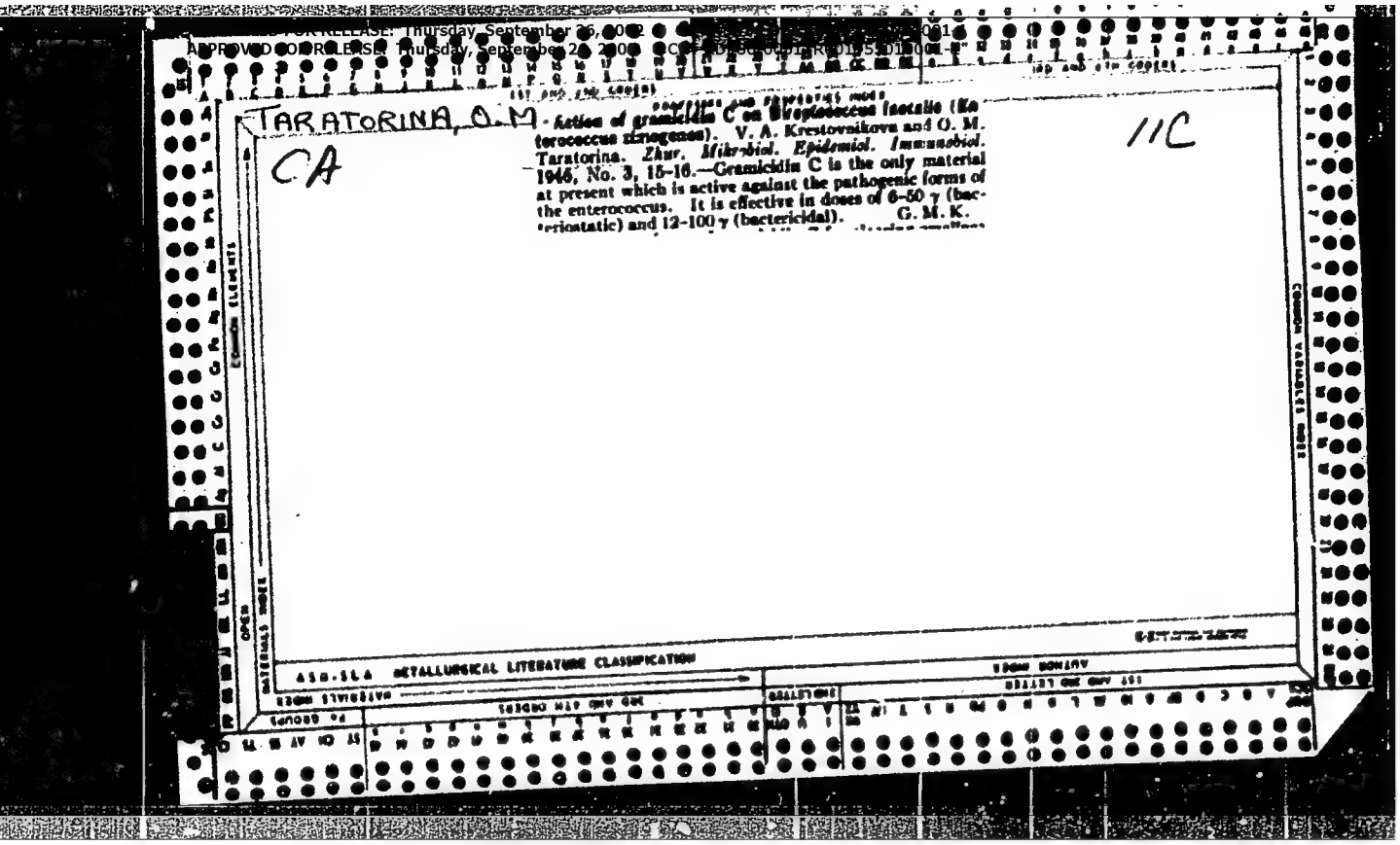
TARATORINA, M. V., Cand Tech Sci -- (diss) "Effect of the speed of heating on transformations in steel during heating." Moscow, Combined Scientific and Technical Publishing House, 1960. 16 pp with graphs; (State Committee of the Council of Ministers USSR for Automation and Machine-building, Central Scientific Research Inst of Technology and Machine-building, TsNIITMash); 150 copies; price not given; (KL, 17-60, 160)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001955010001-8



TARATORINA, O.M.

CA

11C

Action of gramicidin C on Streptococcus faecalis (Enterococcus zymogenes). V. A. Krestovnikova and O. M. Taratorina. *Zhur. Mikrobiol. Epidemiol. Immunobiol.* 1946, No. 3, 15–16.—Gramicidin C is the only material at present which is active against the pathogenic forms of the enterococcus. It is effective in doses of 6–50 γ (bacteriostatic) and 12–100 γ (bacterecidal). G. M. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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TARATORINA, O. N., A. N. MESHCHERINOVA, AND V. A. KRESTOVNIKOVA

"The Influence of Bacteriophage on the Durand-Reynals Factor of Pathogenic Microbes," ZhMEI, 9, 71-78, 1946

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Krestovnikova, V. A., Taratorina, O. M. and Borcyko, V. T. "On the problem of the etiology of contagious-toxic illnesses of newborns," Trudy VI Vsesoyuz. s'yezda det. vrachey, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 180-86

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
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TARATORKIN, A.P., inzh., red.; FOMIN, I.V., red.izd-va; UVAROVA, A.F., tekhn. red.

[Model design for modernization of 153 and 152 type of open-side vertical lathe] Tipovoi proekt modernizatsii karusel'nogo odnostoechnogo stanka modelei 153 i 152. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 146 p. (MIRA 11:5)

1. Krasnodarskiy stankostroitel'nyy zavod imeni Sedina. 2. Otdel modernizatsii i remonat stankov eksperimental'nogo nauchno-issledovatel'skogo instituta metallorezhushchikh stankov (for Taratorkin)
(Lathes)

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TARATORKIN, A.P., inzh., red.; FOMIN, I.V., red. izd-va; TIKHANOV, A.Ya., tekhn. red.

[Standard plan for the modernization of model 136 and 1A36 turret lathes] Tipovoi proekt modernizatsii revol'vernykh stankov modelei 136 i 1A36. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 377 p. (MIRA 11:9)

1. Zavod imeni Sergo Ordzhonikidze. 2. Otdel modernizatsii i remonta stankov eksperimental'nogo nauchno-issledovatel'skogo instituta metallorezhushchikh stankov (for Taratorkin).
(Lathes)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATORKIN, A.P., inzh., red.; BOL'SHAKOV, B.N., red. izd-va; TIKHANOV, A.Ya. tekhn. red.

[Standard design for the modernization of 1M36 and 137 turret lathes] Tipovoi proekt modernizatsii revol'vernykh stankov modelei 1M36 i 137. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 396 p. (MIRA 14:6)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov. 2. Otdel tekhnologii mashinostroyeniya Eksperimental'nogo nauchno-issledovatel'skogo instituta metallorezhushchikh stankov (Moscow) (for Taratorkin)
(Lathes--Technological innovations)

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TARATORKIN, A.P.

Repairing the spindle block of a semiautomatic lathe. Sbor. inform.mat.ENIMS no.17:3-16 '60. (MIRA 14:10)
(Spindles (Machine tools)--Maintenance and repair)

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TARATORKINA, P.F.

Follow-up data on the regeneration of skeletal muscle tissue in mammals subjected to experimental hyperthyroidism. Dokl. 105 no.5: 1114-1117 D '55. (MLRA 9:3)

1. Pervyy leningradskiy meditsinskiy institut imeni I.P. Pavlova. Predstavleno akademikom A.D. Speranskim.
(MUSCLE) (REGENERATION (BIOLOGY))

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TARATORKINA, I. F.

32432. TARATORKINA, I. F. Cherepa papuasov iz kollektsii N. N. Miklukho-Maklaya. Sbornik Muzeya antropologii i etnografii, t. XII, 1949, s. 387-401.

SO: Letopis Zhurnal'nykh Statey, Vol. 44

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TARATUCHENKO, N.I.

BES, Dzh. [Bea, J.]; POGOREL'SKIY, R.A. [translator]; TARATUCHENKO, N.I., [translator]; SHIROKOV, S.I., red.; PLETNEV, V.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Chartering and shipping terms. Translated from the English]. Morskie frakhtovye i transportnye terminy. Pod red. S.I.Shirokova. Moskva, Izd-vo "Morskoi transport," 1957. 133 p. (MIRA 11:5)
(Shipping--Terminology)

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PECHUK, V. I., kand. tekhn. nauk; NAGORNYY, L. Ya.[Nahornyi, L. IA.]; TARATUKHINA, G. P.[Taratukhina, H. P.]; PRADED-SADOVSKIY, D. D. [Pradied-Sadovs'kyi, D. D.]

Tensometric measurement of pressure. Khim. prom.[Ukr.] no.1: 47-52 Ja-Mr '62. (MIRA 15:10)

1. Institut avtomatiki Gosplana UkrSSR.

(Strain guages)

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1. TARATUNINA, O.

2. USSR (600)

4. Cotton - Diseases

7. Root rot of cotton in the light of recent research, Khlopkovodstvo 3 no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

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DEYCHMAN, E.N.; TARATUSHKINA, L.S.

Reaction of indium sulfate with ammonium sulfate. Zhur.neorg. khim. 7 no.10:2331-2334 O '62. (MIRA 15:10)
(Indium sulfate) (Ammonium sulfate)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

GORIN, D.I., kand. tekhn. nauk; BRON, D.I.; TARATUTA, A.I.; LEVITES, I.I.

Effect of high-temperature heat and mechanical treatment on fatigue characteristics of 55C2 and 50KhG spring steels. Avt. prom. 31 no.1:38-39 Ja '64. (MIRA 18:3)

1. Belorusskiy institut mekhanizatsii sel'skogo khozyaystva i Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.

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ACCESSION NR: AP5002983

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Author: Belorusskiy Institut mekhanizatsii sel'skogo khozyaystva

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L 46883-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AR6027569 SOURCE CODE: UR/0277/66/000/005/0010/0010

29

B

AUTHOR: Gorin, D. I.; Taratuta, A. I.

TITLE: Electron microscope study of the structure of silicon leaf-spring steel for high-temperature thermomechanical treatment

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin, Abs. 5.48.58

REF SOURCE: Sb. nauchn. t. r. aspirantov. Belorussk. in-t mekhaniz. s. kh. Minsk, 1965, 87-90

TOPIC TAGS: steel property, silicon spring steel, leaf spring steel, spring steel/55S2 steel

ABSTRACT: Electron-microscope studies (5400x) were made on the structure of 55S2 steel after conventional quenching and high temperature thermomechanical treatment (without tempering). [Translation of abstract] [FM]

SUB CODE: 11/ SUBM DATE: none/

Card 1/1 UDC: 669.14.018.21:620.187

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L 01091-67 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AR6028437 SOURCE CODE: UR/0137/66/000/005/I062/I062

AUTHOR: Taratuta, A. I.

TITLE: Effect of high-temperature thermomechanical treatment on the mechanical properties of spring steel

SOURCE: Ref. zh. Metallurgiya, Abs. 5I425

REF SOURCE: Sb. nauchn. tr. aspirantov. Belorussk. in-t mekhaniz. s. kh. Minsk, 1965, 91-96

TOPIC TAGS: thermomechanical treatment, mechanical property, spring steel, steel/55S2 steel

ABSTRACT: The effect of high temperature thermomechanical treatment (HTMT), (heating to 950—970C, rolling with reduction by 5, 15, 20 and 40%, quenching after 6—8 sec and tempering at 200, 300 and 400C for 1 hour and at 460C for 30 min) on the mechanical properties of St55S2 steel has been studied. The combination of elasticity and strength within specifications for mechanical properties in spring metals is attained for St55S2 after high-temperature thermomechanical treatment and tempering at 400C for 1 hr and 460C for 30 min. In order to attain still higher

Card 1/2 UDC: 669.15.018.27

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

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ACC NR: AR6028437

strength properties, it is necessary to reduce to a minimum the time from the end of deformation to quenching; to obtain high plasticity characteristics without a loss in strength, it is necessary to subject the deformed metal to some soaking prior to quenching. For St55S2, the time is set at 6—15 seconds. [Translation of abstract] [AM]

SUB CODE: 13/

Card 2/2 vlr

APPROVED FOR RELEASE: Thursday, Septembe
APPROVED FOR RELEASE: Thursday, September 26,

SOURCE CODE: UR/0137/66/000/004/I074/I074

Gorin, D. I.; Taratuta, A. I.

TITLE: Investigation of the effect of high temperature thermomechanical treatment on the fine structure of spring steel

SOURCE: Ref. zh. Metallurgiya, Abs. 4I499

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 197-201

TOPIC TAGS: thermomechanical property, fine structure, hot working, metal deformation / 55S2 steel, 50KhG steel

TRANSLATION: A study was made of 55S2 steel of the following composition (wt %): C--0.55, Mn--0.72, Si--1.8, Cr--0.15 and 50KhG steel of the following composition (wt%): C--0.53, Mn--0.8, Si--0.2, Cr--1.1. Mechanical properties were determined in samples previously subjected to thermomechanical treatment: heating to 950-970°C (55S2 steel) and 900-920°C (50KhG steel), deforming by rolling with deformations of 5, 15, 25 and 40%, oil quenching (within 6-8 sec after hot working) and tempering at 200, 300, 400°C for 1 hr and 460°C for 30 min. Stable properties were obtained after 15-20% compressive deformation and tempering 300-400°C for 1 hr. After tempering at 300°C, σ_b was kg/mm² (55S2 steel) and 204 kg/mm² (50KhG steel), which is higher than σ_b after or-

UDC: 669.15.018.294

ACC NR: AR0

dinary heat trea
thermomechanical
kg/mm² (50KhG steel)
spectively; a δ of 45
dinary heat treatment.
mobile leaf springs incre
V. Olenicheva.

SUB CODE: 11,13

Card 2/2

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...RDP86-00513R001755010001-1"

~~9 (2, 3)~~ 9.3240

AUTHORS: Dement'yev, Ye.P., Taratuta, A.S.

TITLE: One Method of Analyzing the Noise Properties of Amplifier Stages

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1959, Nr 1, pp 176-181

ABSTRACT: The authors describe a method of changing the equivalent circuits of noisy four-poles, essentially simplifying the analysis of the noise properties of amplifier stages by transferring the so-called "noise current generators" from one circuit to another one, without changing the external characteristics of a four-pole. Ye.P. Dement'yev established [Ref 1] that three independent "current generators" are required for characterizing completely the noise properties of an amplifier stage. In [Ref 1] he described a method of "current generator" transfer and this paper is a further development of this method. The method establishes the connection between the equivalent circuit dia-

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One Method of Analyzing the Noise Properties of Amplifier Stages

grams of amplifier stages with three independent noise sources, shown in Fig 1, and with two intercorrelating noise sources, shown in Fig 2. Simultaneously, the method will solve the problem of the degree of correlation between the "current generators" $I_{w'1}$ and $I_{w'3}$. It is important to account for the phase relations between the conditionally positive directions of the "current generators"; a practical method is given for this purpose. The authors formulate a general rule for exchanging any "current generator", connected to any terminal of a four-pole, by two equivalent "current generators", connected between other terminals of that four-pole. For transferring a "current generator" from one terminal pair to two other terminals of a four-pole without disturbing the equality of output effects, the particular "current generator" must be short-circuited, thus the short circuit current passes thru those terminal pairs to which the "current generator" is to be

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One Method of Analyzing the Noise Properties of Amplifier Stages

transferred. Then, the "current generator" to be transferred is removed from the circuit diagram, replacing the short circuit currents between two pairs of given terminals by "current generators", equal in value to the short circuit current but having its reversed sign. There are 13 circuit diagrams and 1 Russian reference.

ASSOCIATION: Kafedra radiopriyemnykh ustroystv Leningradskogo elektrotekhnicheskogo instituta (Chair of Radio Receivers of the Leningrad Electrical Engineering Institute)

SUBMITTED: September 16, 1958

4

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATUTA, A.S.

Shot effects of real p-n junctions. Radiotekh. i elektron. 9 no.9:1729-1731 S '64. (MIRA 17:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

GERASIMOV, Serhey Mikhaylovich [Herasymov, S.M.], prof.;
TARATUTA, A.S., kand. tekhn. nauk, retsenzent;
SVECHNIKOV, S.M., kand. tekhn. nauk, red.

[Transistor generators] Tranzystorni generat[illegible]. Kyiv,
Tekhnika, 1965. 146 p. (MIRA 18:5)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATUTA, A.S.

Method for predicting the life of semiconductor devices. Radiotekh. i elektron. 10 no.12:2257-2259 D '65. (MIRA 19:1)

1. Submitted December 11, 1964.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

LEVASHOV, V.,(Krasnodarskiy kray); POLESHKO, S.,(Krasnodarskiy kray); TARATUTA, F.,(Krasnodarskiy kray).

Good initiative ("Brief laboratory manual of organic chemistry".) [professor] M.P. Piatnitskii, B.A. Nesterenko. Reviewed by V. Levashov, S. Poleshko, F. Taratuta. Khim. v shkole 10 no.3:69-71 My-Je '55. (MIRA 8:8)
(Chemistry, Organic--Laboratory manuals)
(Piatnitskii, M.P.) (Nesterenko, B.A.)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATUTA, K.; KONIUCHOWA, Z.

"Preventive Measures Against the Perforation of Textiles. Tr. from the Russian." p. 52, (ODZIEZ, Vol. 5, No. 3, Mar. 1954. Lodz, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

KUKLIN, B.K., inzh.; Prinimali uchastiye: TARATUTA, N.K., gornyy inzh.; ZEL'VYANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; FILIMONOV, A.F., gornyy inzh. SOCHINSKIY, V.P., otv.red.; KHODNEVA, I.V., red.izd-va; IL'INSKAYA, G.M., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Selection of mining systems for flat Donets Basin seams] Vybor sistem razrabotki dlia pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 194 p. (MIRA 14:4)

(Donets Basin--Coal mines and mining)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

KUKLIN, B.K.; prinimali uchastiye: ZEL'VIANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; FILIMONOV, A.F., gornyy inzh.; TARATUTA, N.K., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; MEYEN-BURG, V.Ye., kand. tekhn. nauk, otv. red.; NURMUKHAMEDOVA, V.F., red. izd-va; LOMILINA, L.N., tekhn. red.

[Analyzing the methods of mining flat seams in the Donets Basin] Analiz sistem razrabotki pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 415 p. (MIRA 14:6)

(Donets Basin--Coal mines and mining)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

AZRIKAN, D.; TARATUTA, R.

Design of fluid meter indicators. Tekh. sat. 2 no.9:12-13 S '65. (MIRA 18:11)

1. Spetsial'noye konstruktorskoye byuro Neftekhimpribor.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

ACC NR: AP6035931 (A) SOURCE CODE: UR/0413/66/000/020/0195/0195

INVENTOR: Kiyasbeyli, A. Sh.; Taratuta, R. N.; Nersesov, G. A.; Arutyunov, L. A.; Krems, Ye. F.; Arutyunov, A. A.; Tsabkevich, E. R.; Agabekov, N. G.

ORG: none

TITLE: Dual-action vane pump. Class 59, No. 187530 [announced by the Special Design Bureau "Neftekhimpribor" (Spetsial'noye konstruktorskoye byuro "Neftekhimpribor")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 195

TOPIC TAGS: pump, fluid pump, vane pump, ROTOR BLADE

ABSTRACT: An Author Certificate has been issued for a dual-action vane pump containing a rotor in which blades are mounted in radial grooves. These slide along the inner surface of the stator, the profile of which is formed by two arcs described from the center of the rotor and having various radii, and between them is located a curved crossover section. To reduce inertia, the crossover section is made in accordance with a curve determined by the equation

$$y = \frac{h}{10}\left(2 + 6\frac{\theta}{\beta} - 2\cos\frac{\pi\theta}{\beta} - \frac{3}{\pi}\sin\frac{2\pi\theta}{\beta}\right),$$

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ACC NR: AP6035931

where y is the blade-displacement value depending on angle 0, θ is the flow angle (which changes from 0 to β, β is an angle taking in the entire guide curve, and h is the maximal (given) working-blade-displacement value, which is equal to the difference between the radii of the outer and inner arcs of the stator profile. Orig. art. has: 1 figure. [KT]
[WA-98]

SUB CODE: 13/ SUBM DATE: 21Jun65

Card 2/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATUTA, K.N.

ABRAMOV, M.A.; ALIVERDIZADE, K.S.; AMIROV, Ye.M.; ARENSON, R.I.; ARSEN'YEV, S.I.; BAGDASAROV, R.M.; BAGDASAROV, G.A.; BADAMYANTS, A.A.; DANIYELYAN, G.N.; DZHAFAROV, A.A.; KAZAK, A.S.; KERCHENSKIY, M.M.; KONYUKHOV, S.I.; KRASNOBAYEV, A.V.; KURKOVSKIY, A.I.; LALAZAROV, G.S.; LARIONOV, Ye.P.; LISTENGARTEN, M.Ye.; LIVSHITS, B.L.; LISIKYAN, K.A.; LOGINOVSKIY, V.I.; LYSENKOVSKIY, P.S.; MOLCHANOV, G.V.; MAYDEL'MAN, N.M.; OKHON'KO, S.K.; ROMANIKHIN, V.A.; ROSIN, I.I.; RUSTAMOV, E.M.; SARKISOV, R.T.; SKRYPNIK, P.I.; SOBOLEV, N.A.; TARATUTA, R.N.; TVOROGOVA, L.M.; TER-GRIGORYAN, A.I.; USACHEV, V.I.; FAYN, B.P.; CHICHEROV, L.G.; SHAPIRO, Z.L.; SHEVCHUK, Yu.I.; TSUDIK, A.A.; ABUGOV, P.M., red.; MARTYNOVA, M.P., vedushchiy red.; DANIYELYAN, A.A.; TROFIMOV, A.V., tekhn.red.

[Oil field equipment; in six volumes] Neftianoe oborudovanie; v shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.3. [Petroleum production equipment] Oborudovanie i instrument dlia dobychi nefti. 1960. 183 p. (MIRA 13:4)

(Oil fields--Equipment and supplies)

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...-00513R001755010001-1"

AID P - 4953

Subject : USSR/Engineering

Card 1/ Pub. 110-a - 2/21

Authors : Kostrikin, Yu. M., Yu. O. Novi, K. A. Rakov, Kandidats of Tech. Sci., G. I. Aleynikov, N. V. Bulgakova, V. A. Taratuta, Engineers.

Title : Results of thermal and chemical tests of a once-through boiler of 215 and 300 atmospheres.

Periodical : Teploenergetika, 3 - 8, 10-13, Ag 1956

Abstract : Data are given on the quality of steam supplied by an once-through boiler operating at 215 and 300 atmospheres. The boiler is fed by the turbine condensate mixed with the cooling calcium-bicarbonate water. The design and performance of boilers of near critical and super critical pressures are discussed, and various related problems are examined. 4 diagrams. 3 references.

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Teploenergetika, 8, 10-13, Ag 1956 AID P - 4953

Card 2/2 Pub. 110-a - 2/21

Institution : VTI (All-Union Heat Engineering Institute) and TsKTI (Central Institute for Boilers and Turbines), Moscow Branch.

Submitted : No date

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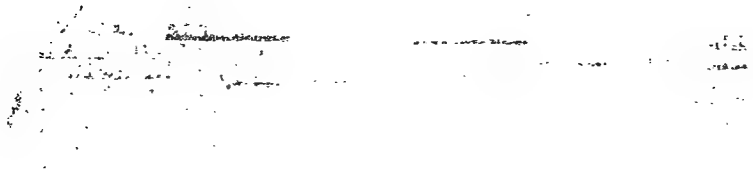

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATUTA, V. A.

SOV/96-58-5-9/27

AUTHORS: Korovin, V.A., Engineer, Kostrinkin, Yu.M., Candidate of Technical Sciences and Taratuta, V.A., Solov'yeva, V.P., Engineers

TITLE: A Spectro-photometric Method of Controlling the Water Conditions in Thermal-power Equipment (Spektrofotometricheskiy metod kontrolya vodnogo rezhima v teplosilovom khozyaystve)

PERIODICAL: Teploenergetika, 1958, Nr 5, pp 46 - 49 (USSR)

ABSTRACT: At present two methods are used to determine the salt content of steam and condensate; one is by ionic analysis and the other by measurement of electrical conductivity. The disadvantages of these methods are described and the use of spectro-photometer is recommended. The technique for the determination of elements such as sodium, potassium and calcium is indicated in general terms.
The article then describes a simple flame spectro-photometer installation assembled at the All-Union Thermo-technical Institute. It can be made up in any power-station laboratory. The equipment is illustrated diagrammatically in Figure 1; its construction and method of operation are described. It was used to determine sodium in solution at concentrations ranging

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A Spectro-photometric Method of Controlling the Water Conditions in Thermal-power Equipment

from 0.1 mg/litre to some hundreds of milligrams per litre. A special three-channel burner was used; it is illustrated in Figure 2. Detailed operating instructions for the instrument are then given, including calibration with standard solution and the method of working out the results.
The entire process of determining sodium content in samples, for example, in acid concentrations or in other liquids, can be completed in 5 - 10 minutes, including the time necessary to plot the graphs. The accuracy is of the order of ± 5%, similar to that of a good photo-calorimeter.
There are 2 figures and 4 Soviet references.

ASSOCIATION: VTI

Card 2/2 1. Heat engines--Water supply 2. Feed water--Purification
3. Feed water--Analysis 4. Spectrophotometers--Applications

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

SOV/96-59-8-4/27

AUTHOR: Taratuta, V.A., Engineer

TITLE: A Procedure for Determining Sodium Ferrite

PERIODICAL: Teploenergetika 1959, Nr 8, pp 11-14 (USSR)

ABSTRACT: In 1949-50 whilst testing high pressure once-through boilers the All-Union Thermo-Technical Institute obtained evidence of caustic-soda deposits on the heating surfaces. As it is not possible for caustic soda to occur in solid form in the presence of steam it was suggested that a chemical compound was being formed between the caustic soda and iron oxides of the form of $2NaFeO_2$. With the introduction of flame spectrophotometry it became possible to determine accurately small concentrations of sodium and it was discovered in a power station of the Moscow System that caustic soda deposition occurs even when its concentration in the feed water is very small. Caustic soda commonly occurs in the feed water of once-through boilers and so it was decided to study the subject. After consideration of published work it was decided to investigate

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A Procedure for Determining Sodium Ferrite

the reaction between anhydrous sodium carbonate and iron oxide. The substances were mixed in a stainless steel vessel and heated, and the sintered product was analysed. The test results are given in Table 1 and it will be seen that there is a chemical reaction involving the evolution of carbon dioxide and the formation of sodium ferrite. The reaction commences at about 700°C and at 900°C it is practically complete in 5 minutes. Excess iron oxide promotes the formation of ferrite. The reaction between iron oxide and caustic soda was also studied in a stainless steel vessel, with the results given in Table 2. Again the experimental procedure is described. In this case the reaction could occur freely at a temperature of 200°C but was not complete at 160°C. Further test results are given in Table 3 and show that excess iron oxide is not a prerequisite of the reaction. Tests were then made to determine the formula of the ferrite formed. The tests are described and the results lead to the conclusion that the composition of the reaction product is $NaFeO_2$, whatever the ratio of caustic soda to iron oxide, the temperature and the duration of sintering. However, it appears from some of

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A Procedure for Determining Sodium Ferrite

the tests that sodium ferrite formed at low temperature is more easily decomposed by cold water than that formed at high temperature, so there are probably two modifications of sodium ferrite. In the light of the above work, a procedure is suggested for the determination of sodium ferrite in the presence of free alkali and iron oxide. In conclusion, it is noted that dry sodium ferrite can be kept in a dessicator over quick lime for quite a long time without fear of decomposition; if free alkali is present the sodium ferrite decomposes more rapidly; and in moist air even pure sodium ferrite decomposes quickly, being half decomposed in 4 to 5 hours. Thus the ferrite may not be detected when boilers and turbines are shut down, because the presence of small quantities of moisture will cause its rapid decomposition into free alkali and iron oxide. There are 1 figure, 3 tables and 2 Soviet references.

ASSOCIATION: MO TsKTI (Moscow Division of the Central Boiler Turbine Institute)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

KEMEL'MAN, M.N.; TARATUTA, V.A.; ESKIN, N.B.

Thermal and chemical testing of an experimental US-2.6/39 once-through type waste-heat boiler. Prom.energ. 16 no.5:3-8 My '61. (MIRA 14:7)

(Boilers—Testing)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATUTA, V.A., elektrosvarshchik

We master new methods of welding. Transp. stroi. 12 no.11:5-6 N '62. (MIRA 15:12)

1. SMP-102 tresta Mostransstroy.
(Concrete reinforcement—Welding)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

MAMET', A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA, V.A., inzh.

Chemical purification of once-through type boilers using trilon B. Elek.sta. 34 no.2:12-16 F '63. (MIRA 16:4)
(Boilers—Cleaning)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

MAMET, A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA, V.A., inzh.

Water cycle norms of once-through type boilers. Teploenergetika 11 no. 1:91-92 Ja '64. (MIRA 17:5)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

KOSHELEV, I.I., kand.tekhn.nauk; ESKIN, N.B., inzh.; TARATUTA, V.A., inzh.; KAPCHITS, D.A., inzh.; ABRYUTINA, N.V., inzh.; POLYAKOVA, V.P., inzh.; LEBEDEVA, I.G., inzh.

Study of salt extraction by the flushing and separating system of the PK-24 boiler. Elek. sta. 35 no. 4:10-15 Ap '64. (MIRA 17:7)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

MAIET, A.F., doktor tekhn. nauk, prof.; ALEYNIKOV, G.I., kand. tekhn. nauk; TARATUTA, V.A., inzh.

Prestart cleaning of an 300Mw. power block. Teploenergetika 12 no.7:26-33 Jl '65. (MIRA 18:7)

1. Moskovskoye otdeleniye TSentral'nogo kotloturbinnogo instituta im. Polzunova.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATUTA, V.N.; BABCHUK, I.V.

There will not be economically weak farms. Zashch. rast. ot vred. i bol. 9 no.1:4-6 '54. (MIRA 17:4)

1. Nachal'nik Khmel'nitskogo proizvodstvennogo kolkhozno-sovkhoznogo upravleniya (for Taratuta). 2. Nachal'nik Vinnitskoy oblastnoy stantsii zashchity rasteniy (for Babchuk).

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TARATUTA, Ye. S.

Acad. Med. Sci. (Mbr., Inst. Hygiene & Prophylaxis of Diseases, -c1949-; Mbr., Inst. General & Communal Hygiene, Dept, Hygiene, Microbiology, & Epidemiology, -c1949-.) Mbr., Moscow Oblast Sanitation & Hygiene Inst., -c1949-. "Hygiene Appraisal of the Decentralized Exhaust Ventilation in Mills Producing Rayon," Gig. i. San., No. 6, 1949.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

NORNEVSKIY, Boris Ivanovich; TARATYNOV, Ivan Afanas'yevich; MURATOV, I.I., red.; VOLCHOK, K.M., tekhn.red.

[Electric power plants and networks for ships] Sudovye elektricheskie stantsii i seti. Leningrad, Izd-vo "Rechnoi transport," 1958. 267 p. (MIRA 11:12)

(Electricity on ships)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATYNOV, I. A., inzh.

Economically effective electric current density in electric networks on ships. Izv. LETI 59 no.46:157-168 '62.
(MIRA 15:10)

(Electricity on ships)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

NORNEVSKIY, Boris Ivanovich; TARATYNOV, Ivan Afanas'yevich [deceased]; MORDOVIN, B.M., prof., retsenzent; PAIN, B.S., dots., retsenzent; MURATOV, I.I., kand. tekhn. nauk, retsenzent; FRIK, A.O., inzh., red.; KAN, P.M., red.

[Electrical equipment of ship and shore stations and substations] Elektricheskoe oborudovanie beregovykh i sudovykh stantsii i podstantsii. Moskva, Transport, 1965. 334 p. (MIRA 18:5)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATYNOV, V., inzhener-sudovoditel'.

From experience acquired in utilizing Professor G.E. Pavlenko's diagram on "Leningrad" type ships. Mor.flot 15 no.12:23-25 D '55. (MLRA 9:3)

(Cargo handling) (Pavlenko, G.E.)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATYNOV, V., kapitan parekheda "Khasan" inzhener-sudoveditel'.

British experimental radar determination chart. Mor.flot.16 no.9:25-26 S '56. (Great Britain--Nautical charts) (MLRA 9:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATYNOV, V., inzhener-sudovoditel'.

A flaw in the method of graphic plotting of radar observations.
Mor. flot 17 no.4:10 Ap '57. (MLRA 10:4)

1. Kapitan parokhoda "Khasan".
(Radar in navigation) (Collisions at sea--Prevention)

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TARATYNOV, V.

Anomalies of radar wave propagation. Mor. flot 18 no.2:10-11 F '58.
(MIRA 11:2)

1.Kapitan parokhoda "Khasan."
(Radar in navigation)

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7(7) PHASE I BOOK EXPLOITATION SOV/2070

Taratynov, Vladislav Petrovich, Captain

Ispol'zovaniye RLS dlya raskhozhdeniya sudov (Use of RLS [Radar] for the Separation of Ships) Leningrad, Izd-vo "Morskoy transport," 1959. 67 p. Errata slip inserted 6,000 copies printed.

Special Ed.: V. I. Shchegolev; Ed. of Publishing House: Z. S. Frishman; Tech. Ed.: O.I. Kotlyakova.

PURPOSE: This book is intended for specialists in marine navigation.

COVERAGE: The book describes the fundamentals of radar observation and interferences occurring in the process. It discusses methods of determining the elements of movement of converging ships and methods of separation. The book is based on Soviet and non-Soviet sources and on the author's experience in radar operation. The author thanks V. I. Shchegulev, scientific staff-worker at TsNIIMF, for help in reviewing the manuscript. There are 8 references: 3 Soviet (including 1 translation), 4 English, and 1 German.

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Use of RLS [Radar] (Cont.) SOV/2070

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TARATYNOV, V., kapitan dal'nego plavaniya

Steps to be taken by captains in reporting damage to ships in foreign harbors. Mor.flot. 20 no.8:19-20 Ag '60. (MIRA 13:8)

1. Baltiyskoye parokhodstvo.
(Ship handling) (Marine accidents)

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TARATYNOV, V., kapitan dal'nego plavaniya

Proposed rules of navigation in the English Channel. Mor. flot 21 no.4:42-43 Ap '61. (MIRA 14:4)
(English Channel--Navigation)
(Collisions at sea--Prevention)

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TARATYNOV, V.

Regulating navigation on the sea routes of Northwestern Europe. Mor.flot 22 no.12:23-25 D '62. (MIRA 15:12)

1. Kapitan teplokhoda "Krasnograd".
(British Channel--Rule of the road at sea)
(North Sea--Rule of the road at sea)

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S/129/61/000/011/008/010
E073/E135

AUTHORS: Bogulyubov, V.A., Nagovitsyn, V.V., Taratynov, V.P., Teymer, D.A., and Filyand, M.A.

TITLE: Stainless free cutting steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.11, 1961, 41-43

TEXT: Machining of the steel 1Х18Н9 (1Kh18N9) can be effectively improved by introducing 0.20-0.40% S. However, a content of over 0.20% S brings about a deterioration in the hot-working properties of the material. This difficulty can be largely overcome if the sulphur is added in the form of sulphides of zirconium or molybdenum. However, the presence of sulphur will always reduce the plasticity and the resistance-to-corrosion of the material. The machinability of stainless steel can also be improved by introducing selenium. A content of 0.15-0.30% Se has no appreciable influence on the mechanical properties of chromium-nickel stainless steel; the elongation, contraction and impact strength are higher than in the case of adding S; the decrease in the resistance-to-corrosion is insignificant. Since Se cannot

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Stainless free cutting steel

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E073/E135

be used in its pure form, experiments have been made to find Se-containing master alloys which would enable obtaining the required Se content, without generating excessively poisonous substances during the process of melting. The experiments were carried out in high-frequency furnaces of 35-50 kg and 0.5-1.5-ton capacity and in a 1.5-ton capacity arc furnace. It was found that Se-containing steel should be produced in high-frequency furnaces with acidic linings since in these the amount of selenium oxide generated is 5-10 times lower than in basically-lined furnaces (the selenium contamination of the air was evaluated by V.P. Yershov of the Institut gigiyeny truda i profzabolevaniy AMN SSSR (Institute of Hygiene and Industrial Diseases of AMN USSR). The selenium-generation from arc furnaces is higher. The iron-base master alloy should contain 20-25% Se; if the Se content is higher its evaporation increases appreciably. Forming of the steel was without special difficulty, the initial forging temperature being 1150-1180 °C and the final one 900 °C. The thus-obtained blanks were hot-rolled to 6.5 mm and 4.5 - 4 mm strip for further cold-rolling. The hot-rolled strip was quenched from

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Stainless free cutting steel

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1050 °C in running water; the Se and S contents did not affect the hardness of the metal after heat-treatment. The machinability and the corrosion-resistance were also tested and comparative tests were made on steel containing S additions. It was found that additions of S or Se to the steel under investigation improved its machinability so that it approaches that of carbon steels. It was also found that additions of S did reduce the resistance-to-corrosion of the material. Addition of Se in a quantity greater than 0.15-0.30% reduces the corrosion-resistance of this steel on exposure to a hot and humid climate, an atmosphere which is contaminated by sulphurous gases, human perspiration and sea mist. There are 2 figures.

ASSOCIATION: TsNIIChM

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TARATY'NOV, V. P.,

"Improvement of the physical and mechanical properties of Fe-base, Co-base, or Ni-base alloys."

report presented at the Conf. on New Trends in the Study and Applications of Rare Earth Metals, Moscow, 18-20 Mar 63

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L 17451-63 EWP(q)/EWT(m)/BDS AFFTC/ASD RDW/JD S/0130/63/000/008/00

62
61

ACCESSION NR: AP3004580

AUTHORS: Nagovitsin, V. V.; Taraty*nov, V. P.

TITLE: Technology of smelting stainless selenium-containing automatic steel

SOURCE: Metallurg, 6, no. 8, 1963, 15-16 27

TOPIC TAGS: automatic steel, stainless steel, selenium steel, ferroselenium, selenium, rolled selenium steel

ABSTRACT: The technology of smelting stainless, selenium-containing automatic steel was developed to insure a minimum vaporization of the highly toxic selenium and its compounds in work installations. The laboratory studies were conducted jointly by TsNIIchermet and by Institut gigiyeny* truda i profzabolevaniy Akademii meditsinskikh nauk SSSR (Institute of Occupational Diseases, Academy of Medical Sciences, SSSR). It was subsequently tested in the "Electrostal'" and Chelyabinsk plants. The first step in the process consists in the preparation of a ferroselen alloy, which is achieved by sintering at 800-950C in a well-ventilated gas-heated chamber furnace a mixture of 25% powdered selenium and 75% powdered iron in clos 20-kg sheet iron cans. These cans are subsequently dipped in the molten steel acid-lined induction furnaces after the steel has undergone reduction and the s

ASS. Surgy

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...te of Ferrous Metal-

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L 17451-63

ACCESSION NR: AP3004560

drained off. The ingots of the resulting steel should contain 0.4% selenium. It is claimed that the observation of the enumerated rules results in a hundredfold reduction in vaporization of selenium. Orig. art. has: 1 table.

ASSOCIATION: TsNIIchermet (Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED: 00 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

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TARATYNOVA, L. P., Okhotsimskiy, D. Ye. and Eneiev, T. M.

"Determining the Time of Existence ofthe Artificial Earth Satellite and Studying Secular Perturbations of its Orbit."

Paper prepared for the VIII International Astronautical Congress held in Barcelona, 6-12 October 1957.

Incl. No. 4, R-456-57, [redacted] Conf. File.

APPROVED FOR RELEASE; Thursday, September 26, 2002
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

AUTHOR OKHOTSIMSKIY, D.Ye., ENEYEV, T.M., TARATYNOVA, G.P., 53-1a-3/18

TITLE The Determination of the Life of an Artificial Satellite and the Investigation of the Secular Perturbations of its Orbit. (Opredeleniye vremeni sushchestvovaniya iskusstvennogo sputnika i issledovaniye vekovykh vozmushcheniy yego orbity -Russian)

PERIODICAL Uspekhi Fiz.Nauk, 1957, Vol 63, Nr 1a, pp 33 - 50 (U.S.S.R.)

ABSTRACT At heights of from about 100 to 150 km the life of the satellite is short and in the case of low transversal stresses the satellite does not even perform a full revolution. Works existing up to now on the life of artificial satellites use only approximation methods and for the general case do not give a full solution of the problem. Besides, unsubstantiated methods of approximation may lead to essential errors. By means of the method discussed here the life of the satellite can for the general case be computed sufficiently quickly and reliably. This investigation proved the existence of universal dependences between the main parameters of the osculatory ellipse. These relations apply in the case of any satellites and depend only upon the density distribution of the air at increasing height. With the help of the diagrams and tables given here the life of the satellite as well as the change of its orbit parameters with respect to time can be determined quickly. The equations used here were computed bymeans of the electronic rapid computor BESM of the Academy of Science of the U.S.S.R. Because of the hitherto unknown dependence on height of the air density, the numerical results given here are natur-

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The Determination of the Life of an Artificial Satellite and the Investigation of the Secular Perturbations of its Orbit.

ally suited only for temporary orientation. The values recorded by the satellites will make it possible to carry out precise computations.

The dependence of the density of the atmosphere upon height: An approximated formula for this dependence is given.

The equation of motion: The motion of the satellite is determined here by making use of the osculatory orbit elements; the corresponding equations of motion are written down explicitly. This system of equations is then transformed by means of the known celestial-mechanical theorems. Equations for the variable "argument of breadth" u are more suitable for computations than the equations of the true anomaly ϑ.

The method of the determination of the life of an artificial satellite: The authors here investigate the motion of the satellite in the terrestrial atmosphere in the case of a central gravitational field of the earth. The simultaneous motion of the atmosphere together with the daily revolution of the earth is neglected here. The corresponding system of equations is given. The resistance of the atmosphere does not cause secular perturbations of the modal length and the inclination of the orbit. The problem investigated here leads to the integration of a system of two differential equations. Carrying out of integration is discussed. The computations are carried out

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here for the initial height of the apogee h_{a_0} = 1600 km and for initial heights of the perigee 160 km $\leq h_{\pi_0} \leq$ 900 km. The integration of the system of equations was up to the height of 100 km, carried out by the satellite.

The results of computations and their discussion: These results are shown together in a table and are illustrated by a nomogram. This table contains the amounts of v (in $m^3/kg\ sec^2$) as function of the initial values of h_a and h_π as well as the velocities in the perigee at the beginning of the motion of the satellite. During the motion of the satellite the heights of the apogee and perigee decrease monotonously, and h_a decreases more rapidly than h_π. This difference can be very remarkable for long-stretched orbits. The excentricity of the orbit decreases more and more and tends towards zero. The life of the satellite at an increase of the initial height of the perigee increases more quickly than in the case of an increase of the initial height of the apogee. At unchanged heights of the perigee the life of the satellite can be prolonged considerably by increasing the initial height of the apogee. Long-stretched orbits are, in any case, of advantage. The life of the satellite is nearly inversely proportional to the density of the air within the domain of the primary perigee. The times of revolution computed here for some numerical examples amount to several, or even many years.

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The Determination of theLife of an Artificial Satellite 53-1a-3/18
and the Investigation of the Secular Perturbations of its Orbit.

The last chapter deals with the secular perturbations of the orbit parameters of the satellite.
(2 illustrations and 2 tables).

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EMEYEV, T.M., OKHOTSIMSKIY, D.Ye., and TARATYNOVA, G.P.

TARATYNOVA, G.P.

"Determining the Lifetime of an Artificial Earth Satellite and an Investigation of Secular Perturbations of Its Orbit," Uspekhi Fizicheskikh Nauk, Vol. 63, No. 1-2, p. 46, September 1957.

SO: JPRS Report No. 187

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

AUTHOR TARATYNOVA, G.P.

TITLE On the Motion of an Artificial Earth Satellite in the Non-Central Field of Gravitation of the Earth in Face of an Existing Atmospheric Resistance. 53-1a-4/18
(O dvizhenii iskusstvennogo sputnika v netsentral'nom pole tyagoteniya zemli pri nalichii soprotivleniya atmosfery -Russian)

PERIODICAL Uspekhi Fiz.Nauk, 1957, Vol 63, Nr 1a, pp 51 - 58 (U.S.S.R.)

ABSTRACT The present paper discusses the method of computing the motion of an artificial earth satellite in consideration of atmospheric pressure by means of a high-speed numerical computer.On this occasion the motion performed by the atmosphere together with the earth and the deviations of the field of gravitation from the central field are taken into account.The perturbation of the orbit of the satellite by the sun and the moon is disregarded.

The Equation of the perturbed motion of an artificial earth satellite.The method of integration: The author here describes this motion of the earth satellite by means of differential equations for the osculating elements.In addition,there is a differential equation for the dependence of the true anomaly ϑ on time.This system of differential equations is then transformed to the independent variable ϑ. The resulting system of equations then fully determines the motion of the earth satellite.The author next finds formulae for the projection of the acceleration of the force of gravity of the earth on to the radious vector and on to the tangent to the meridian.After

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some computations a system of differential equations is then determined which describes the change of the orbit of the satellite in the course of time. The solution of this system of equations consists of a discrete sequence of values of the oscillation orbital elements. A diagram illustrates the periodic modification of the element p. The solution of this system of equations is reduced to a double integration. The manner how integrations are carried out is discussed in short.

Computation of the Orbit of the artificial satellite. According to the method discussed here the orbit of an artificial satellite was computed as an example by means of the electronic high speed computer of the Academy of Science of the U.S.S.R. The satellite was assumed to have a weight of 1o kg and a diameter of 0.5m. The coefficient of aerodynamic resistance is put equal to 2. For the orbital elements the following initial values are assumed: h_a = 1285 km, h_{π_o} = 32o km, i_o = 45°, ω_o = 9o°, Ω = 129°. (h_a and h_{π_o} denote the initial values of the apogee and perigee respectively). The results of computations are shown in form of a diagram containing curves for the modification p, e (excentricity), ω (angular distance of the perigee from the node), Ω (length of the ascending node), for a duration of 7oo days. The curves for p and e are of oscillatory charac-

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ter. The period of oscillations amounts to about 36 days and agrees with that period in which the oscillating element ω is modified by π. These oscillations are here described as long-period oscillations. They are caused by the following: If the true anomaly ϑ is modified by 2π, the oscillation orbital ellipse itself as well as its orientation in absolute space are modified as well. If ϑ is modified by $2\pi k$ (k=1,2...), the satellite will take up different positions with respect to the equatorial plane. The force caused by the deviation of the field of gravity of the earth will then differ according to breadth. The curves contained in the above diagram make it possible to judge what secular perturbations of the osculating elements of the orbit of the satellite exist (for a certain period of time). In the case of a period of 700 days the secular perturbations of the orbital elements are : $\Delta p = -414$ km, $\Delta e = -0{,}0564$, $\Delta\omega = -3860^{\circ}$. $\Delta\Omega = -3529^{\circ}$. With this orbit the perigee of the osculating ellipse in the course of time changes its position with respect to the equatorial plane. In 700 days the perigee of the osculating ellipses moves 11 times round the earth. The ascending node moves per day about 5° inversely to the direction of the motion of the earth. For the computations discussed here the electronic computer was used only 4 hours.

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On the Motion of an Artificial Earth Satellite in the Non-Central Field of Gravitation of the Earth in Face of an Existing Atmospheric Resistance. 53-1a-4/18

(4 illustrations)

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TARATYNOVA, G.P.,

"The Motion of an Artificial Satellite in the Noncentral Gravitational Field of the Earth in the Presence of Atmospheric Resistance," Uspekhi Fizicheskikh Nauk, Vol. 63, No. 1-2, p. 69, September 1957.

SO: JPRS Report no. 187

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

PHASE I BOOK EXPLOITATION SOV/4281

Akademiya nauk SSSR

Iskusstvennyye sputniki zemli, vyp. 4 (Artificial Earth Satellites, No. 4) Moscow, 1960. 205 p. Errata slip inserted. 6,500 copies printed.

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: M.I. Fradkin; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended to disseminate data collected in investigations performed by means of artificial earth satellites.

COVERAGE: The collection consists of 15 articles dealing with scientific data on Soviet artificial earth satellites (AES) and cosmic rockets. The topics discussed include measurements of the density of the upper atmosphere, motion of AES, measurements of micrometeorites and meteoric matter, magnetometric measurements of cosmic rays, electrical potential, and spectrum of positive ions. The collection is part of a series published regularly. References follow each article.

Iatsunskiy, I.M. Determination of the Conditions of Illumination and the Time Intervals in Which the Satellite Remains in Sunlight and in Shadow 35

The article discusses one of the possible methods of determining the conditions of illumination of satellites. The relative motion of the first, second, and third Soviet AES to the earth is briefly analyzed.

Kneyev, T.M., A.K. Platonov, and R.K. Kazakova. Determining Orbital Parameters of AES According to Ground Measurements 43

An abbreviated method of orbital parameter determination and forecasting of satellite motions is given. The method is based on data from the processing of optical and radiotechnical observations.

Tarasyonova, G.P. Methods of Numerical Solution of Equations in Finite Differences and Their Application to the Calculation of AES Orbits 56

The finite difference method is applied in the calculation of certain problems of celestial mechanics in the solution of systems of nonlinear differential equations determining the motion of AES in larger time intervals.

Lur'ye, A.I. Equation of Disturbed Motion in Kepler's Problem 82

Stanyukovich, K.P. Elements of the Shock Theory of Solid Bodies at High (Cosmic) Velocities 86

The author discusses the problems of shocks of meteorites at high (cosmic) velocity against the surface of a planet. This problem is related to the study of shocks of micrometeorites against the surface of AES

Mirtov, B.A. Meteoric Matter and Some Problems of Geophysics of the Upper Atmospheric Layers 118

The author attempts to connect phenomena occurring in the upper atmosphere with the presence there of particles of meteoric origin traveling at high velocities.

Dolginov, S.Sh., L.N. Thugov, and V.A. Selyutin. Magnetometric Equipment of the Third Soviet AES 135

The working principle and installation of the magnetometric equipment on the AES are described. Characteristics of materials and the stability and precision of operation are discussed.

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TARATORIN, B.I.

TO

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APPROVED FOR RELEASE: Thursday, September 26, 2002

TARATORIN, B. I.

AUTHORS: Morozov, B.A., Timoshuk, L.T., Candidates of Technical Sciences, and Taratorin, B.I., Engineer. 133-12-12/26

TITLE: An Increase in the Loading Capacity of Stands for Plate Mills (Povysheniye nagruzochnoy sposobnosti stanin listoprokatnykh kletey)

PERIODICAL: Stal', 1957, No.12, pp. 1107 - 1110 (USSR).

ABSTRACT: An investigation of the strength of stands of static and dynamic load carried out by TsNIITMASh and TsNIIChM is described. The distribution of main stresses on the surface of a working stand is shown in Fig.3, the dependence of the working ability of stands of typical and improved designs on the value of a pulsating load - Fig.6, the dependence of deformation of parts of stands of mills 2180(a) and 1680(b) on the positioning of the screw down screw in Fig.7. Conclusions: 1) The weakest spots in housing stand of sheet rolling mills are cross beams, particularly when they possess openings for screw down screws. 2) In order to increase load carrying capacity of stands of operating mills, it is necessary; a) to change the design of the nut of the screw down screw, transferring the supporting surface of the nut to the bottom surface of the cross beam (Fig.4b) or at least into the zone of compressing stresses; b) to increase transition radii in the most stressed points

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at the stand, A, B, V (Fig.4). If the latter is impossible the corresponding places should be work-hardened (treatment with rollers or shot peening). 3) The quality of casting of the cross beam of the stand should be particularly watched. Therefore, when an increase of load on the stand is expected, untreated surfaces of the cross beam in the stretched parts should be machined. 4) The weight of stands should be decreased by about 18% by changing the cross-section area of stands (Fig.4b) by about 30% which does not deteriorate the strength and rigidity of the stand. There are 7 figures and 3 Slavic references.

ASSOCIATION: TsNIITMASh

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TARATORIN, B. I.: Master Tech Sci (diss) -- "Investigation and computation of deformations and stresses in the back-up plates of hydraulic stamping presses". Moscow, 1958, published by TsBNTI. 23 pp (Glavniiproyekt [Main Designing] of Gosplan USSR, Central Sci Res Inst of Technology and Machinebuilding), 150 copies (KL, No 1, 1959, 121)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATORIN, B.I.

Design of underdie blocks for hydraulic stamping presses. Kuz.-shtam. proizv. 1 no.2:8-13 F '59. (MIRA 12:10)
(Power presses)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATORIN, B.I.

Experimental investigation of deformations and stresses in underplates of hydraulic forging presses. Kuz.-shtam. proizv. 1 no.7:15-19 Jl '59. (MIRA 12:10)

(Power presses) (Strains and stresses)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

TARATORIN, V., inzhener.

Reconstructing the SMK-1 crane. Stroitel' no.5:22 My '57.
(MLRA 10:6)

1. Glavnyy mekhanik Upravleniya zhilishchnogo stroitel'stva Angarska.
(Cranes, derricks, etc.)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

SOV/126-7-4-8/26

AUTHORS: Gulyayev, A.P. and ~~Taratorina, N.V.~~

TITLE: The Effect of the Heating Rate on the Transformations in Steel During Tempering

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 4, pp 544-550 (USSR)

ABSTRACT: Electrotempering, i.e. tempering by passage of electric current, has become a practice widely adopted in industry and this prompted the authors of the present paper to study the effect of the heating rate on the transformations taking place in steels during tempering, a problem which so far has received attention of the Soviet workers only. The present investigation was carried out by means of dilatometric and hardness measurements, X-ray and metallographic analyses and anisometric determination of the quantity of the retained austenite. High-carbon steel U12 and a constructional steel St.45 were used as the experimental materials; for the sake of greater accuracy, silver steel wire was used for the preparation of the test pieces, 100 mm long and 3 mm diameter. Prior to the tempering experiments, the test pieces were quenched

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The Effect of the Heating Rate on the Transformations in Steel During Tempering

from 1100°C (steel U12) or 830°C (steel St.45). The transformations taking place at relatively low heating rates (2.7×10^{-2} to 3.2×10^{-1} °C/sec or 100 to 1200°C/hour), attained during furnace tempering were studied with the aid of an optical dilatometer; those occurring at faster rates of heating (0.7×10^{-2} to 9×10^{2} °C/sec), attained during electrotempering, were investigated in a capacitance dilatometer designed by Panov (Ref 5). Since the working length of the test pieces in the former and latter case was 50 and 75 mm respectively, the curves obtained for the shorter test pieces were re-plotted to give data relating to 75 mm length. In the case of steel St.45, identical dilatometer curves (Δl, mm versus temperature, Δ°C) were obtained at all heating rates between 100 and 1200°C/hour; a curve of this type is shown in Fig 1 (curve 1); curves 2, 3 and 4 in Fig 1 are the dilatometer curves of steel U12 heated at 1200, 300 and 400, and 100 and 200°C/hour, respectively. Fig 2 shows the dilatometer curves of steel U12 heated at (1) 900, (2) 750,

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(3) 490, (4) 320, (5) 107 and (6) 0.1°C/sec. The dilatometer curves of steel St.45 heated at (1) 680, (2) 400, (3) 70 and (4) 0.1°C/sec are plotted in Fig 3. (Curves 6 in Fig 2 and 4 in Fig 3 were obtained with the aid of the optical dilatometer). In the next series of experiments, the carbon content in the α solid solution and the proportion of retained austenite in steel U12 were determined by X-ray diffraction. The test pieces were heated to various temperatures at various rates of heating and quenched in water immediately after switching off the current. For comparison, test pieces heated to each tempering temperature at 0.5°C/sec and held at the temperature for 1.5 hours were also examined. The x-ray diffraction patterns were obtained with Fe - K radiation; from the variation of the distance between the (211) - (112) doublet, the variation of the tetragonality of martensite was calculated and the carbon content in the α solid solution was determined. The carbon content (%) of martensite in steel U12 as a function of the tempering

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temperature (°C) and the heating rate (°C/sec) is shown in Fig 4. The proportion of retained austenite (%) and microhardness (H_V) of steel U12 plotted as functions of the tempering temperature and the heating rate are shown in Fig 5 and 6 respectively. (The lowest curve in each of these three figures was plotted for specimens heated to the tempering temperature at 0.5°C/sec and held at the temperature for 1.5 hour). The proportion of the retained austenite was determined by visual comparison of the intensity of the homologous lines (Nechvolodov method); these data were made more accurate by determining the quentity of the retained austenite with the aid of an anisometer. Regarding the metallographic analysis, no difference in the microstructure due to different rates of heating was observed under the optical microscope in steels tempered below 600°C. The microstructures of steel U12 which after quenching from 1100°C was (a) heated to 600°C at 750°C/sec and (b) tempered at 600°C for 1.5 hours, are shown in Fig 7 (x500). Only with the aid of an electron microscope

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was it possible to show that the microstructure of the tempered steel was, in fact, affected by the heating rate even at low tempering temperatures. The microstructure of steel U12 quenched from 1100°C (as revealed by the electron microscope) is shown in Fig 8 (x1200). The electron microphotographs of the same steel, heated to 200°C at 750°C/sec and heated to 200°C at 0.5°C/sec and held at the temperature for 1.5 hours are reproduced in Fig 9a and b respectively. Fig 10 shows the electron microphotographs of steel U12 which after quenching from 1100°C was (a) heated to 300°C at 750°C/sec, (b) heated to 300°C at 150°C/sec and (v) held at 300°C for 1.5 hours having been brought to this temperature at 0.5°C/sec. The experimental results obtained by the present authors show that increasing the rate of heating results in partial suppression of the first transformation, although the temperature range at which this transformation takes place is significantly shifted only when the rate of heating exceeds about 500°C/sec. At slow rates of heating (0.1°C/sec or less)

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such as are attained during furnace tempering, the first transformation begins at approximately 80°C; this is marked on the dilatometer curve by the point at which the volume (length) of the specimen begins rapidly to decrease (comp Fig 2 and 3). Judging by the dilatometer curves, the first transformation still begins at about 80°C even when the rate of heating is raised to 490°C/sec; when, however, a heating rate of 750°C/sec is employed, the transformation begins at 330-350°C; at the rate of 900°C/sec it starts at 430-450°C. The same effect is revealed by the difference in the carbon content in the α solid solution in steel specimens heated to various temperatures at various rates of heating, although the X-ray analysis gives the beginning of the transformation at temperatures lower than those determined by the dilatometric measurements. While the temperature range of the first transformation is shifted at fast rates of heating only, the degree of decomposition of martensite is affected by the variation of the heating rate throughout the range of heating rates employed in

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The Effect of the Heating Rate on the Transformations in Steel During Tempering

the experiments. This is shown clearly by the dilatometer curves, while the X-ray data also indicate that the faster the rate of heating, the lower is the degree of decomposition of martensite. These findings were confirmed by the results of the metallographic analysis: electron microphotographs show that both the quantity of the precipitated carbides and their particle size decrease as the heating rate during tempering increases. Regarding the second transformation, i.e. decomposition of the retained austenite, it occurs at the studied rates of heating, although the positive dilatometric effect (expansion), characteristic for this transformation, is observed only at heating rates not exceeding 100°C/sec. (Compare Fig 1 and 2). Since anisometric measurements of the proportion of the retained austenite in specimens heated to various temperatures at various rates of heating showed that austenite does, in fact, decompose even at heating rates as high as 750°C/sec, it is suggested that the discrepancy between the X-ray and dilatometer data might

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be due to the fact that the retained austenite decomposes only during cooling from the tempering temperature, when comparatively fast rates of heating are employed; this problem, however, requires further study. The dilatometer curves of steel specimens heated at the rates of 750 to 900°C/sec show absence of any volume changes in the 300 to 400°C temperature range which could be taken as an indication that the transformations are completely suppressed in this temperature range; the results of the X-ray analysis, however, show that under these conditions there is a slight decrease in the degree of tetragonality and in the proportion of the retained austenite. It is therefore more likely that at fast rates of heating the transformations are completely suppressed at temperatures up to 200°C, after which both transformations take place simultaneously, the volumetric changes caused by them cancelling each other; when higher temperatures are reached, the first transformation predominates which results in contraction

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shown by the respective dilatometer curves. There are 10 figures, 1 table and 5 Soviet references.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (The Central Research Institute of Technology and Mechanical Engineering)

SUBMITTED: December 3, 1957

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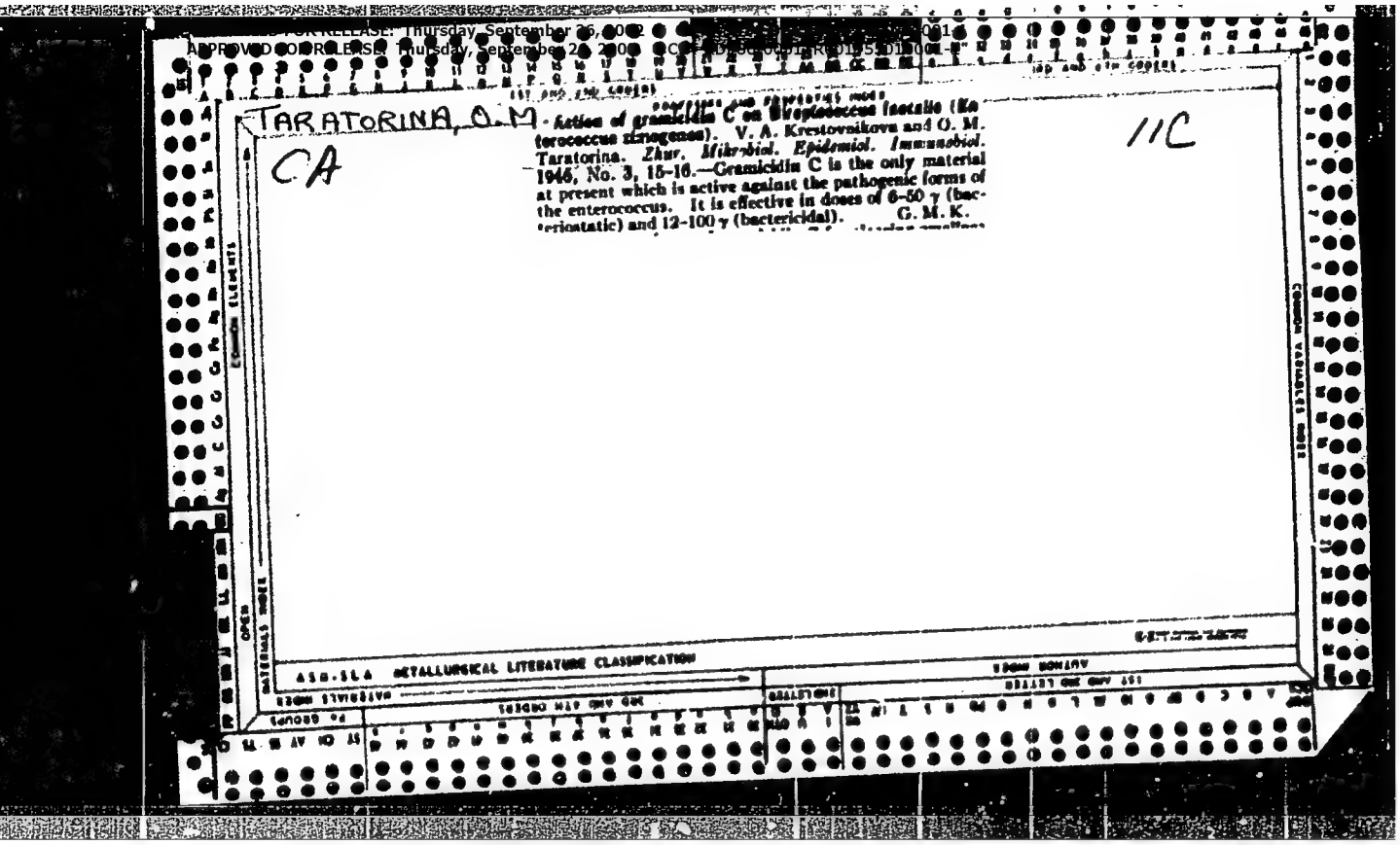

TARATORINA, O.M.

CA

11C

Action of gramicidin C on Streptococcus faecalis (Enterococcus zymogenes). V. A. Krestovnikova and O. M. Taratorina. *Zhur. Mikrobiol. Epidemiol. Immunobiol.* 1946, No. 3, 15–16.—Gramicidin C is the only material at present which is active against the pathogenic forms of the enterococcus. It is effective in doses of 6–50 γ (bacteriostatic) and 12–100 γ (bacterecidal). G. M. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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TARATORKIN, A.P., inzh., red.; FOMIN, I.V., red.izd-va; UVAROVA, A.F., tekhn. red.

[Model design for modernization of 153 and 152 type of open-side vertical lathe] Tipovoi proekt modernizatsii karusel'nogo odnostoechnogo stanka modelei 153 i 152. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 146 p. (MIRA 11:5)

1. Krasnodarskiy stankostroitel'nyy zavod imeni Sedina. 2. Otdel modernizatsii i remonat stankov eksperimental'nogo nauchno-issledovatel'skogo instituta metallorezhushchikh stankov (for Taratorkin)
(Lathes)

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TARATORKIN, A.P., inzh., red.; FOMIN, I.V., red. izd-va; TIKHANOV, A.Ya., tekhn. red.

[Standard plan for the modernization of model 136 and 1A36 turret lathes] Tipovoi proekt modernizatsii revol'vernykh stankov modelei 136 i 1A36. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 377 p. (MIRA 11:9)

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(Lathes)

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[Standard design for the modernization of 1M36 and 137 turret lathes] Tipovoi proekt modernizatsii revol'vernykh stankov modelei 1M36 i 137. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 396 p. (MIRA 14:6)

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TARATORKIN, A.P.

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(Spindles (Machine tools)--Maintenance and repair)

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TARATORKINA, P.F.

Follow-up data on the regeneration of skeletal muscle tissue in mammals subjected to experimental hyperthyroidism. Dokl. 105 no.5: 1114-1117 D '55. (MLRA 9:3)

1. Pervyy leningradskiy meditsinskiy institut imeni I.P. Pavlova. Predstavleno akademikom A.D. Speranskim.
(MUSCLE) (REGENERATION (BIOLOGY))

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SO: Letopis Zhurnal'nykh Statey, Vol. 44

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TARATUCHENKO, N.I.

BES, Dzh. [Bea, J.]; POGOREL'SKIY, R.A. [translator]; TARATUCHENKO, N.I., [translator]; SHIROKOV, S.I., red.; PLETNEV, V.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Chartering and shipping terms. Translated from the English]. Morskie frakhtovye i transportnye terminy. Pod red. S.I.Shirokova. Moskva, Izd-vo "Morskoi transport," 1957. 133 p. (MIRA 11:5)
(Shipping--Terminology)

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Tensometric measurement of pressure. Khim. prom.[Ukr.] no.1: 47-52 Ja-Mr '62. (MIRA 15:10)

1. Institut avtomatiki Gosplana UkrSSR.

(Strain guages)

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1. TARATUNINA, O.

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4. Cotton - Diseases

7. Root rot of cotton in the light of recent research, Khlopkovodstvo 3 no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

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DEYCHMAN, E.N.; TARATUSHKINA, L.S.

Reaction of indium sulfate with ammonium sulfate. Zhur.neorg. khim. 7 no.10:2331-2334 O '62. (MIRA 15:10)
(Indium sulfate) (Ammonium sulfate)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"
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GORIN, D.I., kand. tekhn. nauk; BRON, D.I.; TARATUTA, A.I.; LEVITES, I.I.

Effect of high-temperature heat and mechanical treatment on fatigue characteristics of 55C2 and 50KhG spring steels. Avt. prom. 31 no.1:38-39 Ja '64. (MIRA 18:3)

1. Belorusskiy institut mekhanizatsii sel'skogo khozyaystva i Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.

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ACCESSION NR: AP5002983

2

Author: Belorusskiy Institut mekhanizatsii sel'skogo khozyaystva

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L 46883-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AR6027569 SOURCE CODE: UR/0277/66/000/005/0010/0010

29

B

AUTHOR: Gorin, D. I.; Taratuta, A. I.

TITLE: Electron microscope study of the structure of silicon leaf-spring steel for high-temperature thermomechanical treatment

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin, Abs. 5.48.58

REF SOURCE: Sb. nauchn. t. r. aspirantov. Belorussk. in-t mekhaniz. s. kh. Minsk, 1965, 87-90

TOPIC TAGS: steel property, silicon spring steel, leaf spring steel, spring steel/55S2 steel

ABSTRACT: Electron-microscope studies (5400x) were made on the structure of 55S2 steel after conventional quenching and high temperature thermomechanical treatment (without tempering). [Translation of abstract] [FM]

SUB CODE: 11/ SUBM DATE: none/

Card 1/1 UDC: 669.14.018.21:620.187

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L 01091-67 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AR6028437 SOURCE CODE: UR/0137/66/000/005/I062/I062

AUTHOR: Taratuta, A. I.

TITLE: Effect of high-temperature thermomechanical treatment on the mechanical properties of spring steel

SOURCE: Ref. zh. Metallurgiya, Abs. 5I425

REF SOURCE: Sb. nauchn. tr. aspirantov. Belorussk. in-t mekhaniz. s. kh. Minsk, 1965, 91-96

TOPIC TAGS: thermomechanical treatment, mechanical property, spring steel, steel/55S2 steel

ABSTRACT: The effect of high temperature thermomechanical treatment (HTMT), (heating to 950—970C, rolling with reduction by 5, 15, 20 and 40%, quenching after 6—8 sec and tempering at 200, 300 and 400C for 1 hour and at 460C for 30 min) on the mechanical properties of St55S2 steel has been studied. The combination of elasticity and strength within specifications for mechanical properties in spring metals is attained for St55S2 after high-temperature thermomechanical treatment and tempering at 400C for 1 hr and 460C for 30 min. In order to attain still higher

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ACC NR: AR6028437

strength properties, it is necessary to reduce to a minimum the time from the end of deformation to quenching; to obtain high plasticity characteristics without a loss in strength, it is necessary to subject the deformed metal to some soaking prior to quenching. For St55S2, the time is set at 6—15 seconds. [Translation of abstract] [AM]

SUB CODE: 13/

Card 2/2 vlr

APPROVED FOR RELEASE: Thursday, Septembe
APPROVED FOR RELEASE: Thursday, September 26,

SOURCE CODE: UR/0137/66/000/004/I074/I074

Gorin, D. I.; Taratuta, A. I.

TITLE: Investigation of the effect of high temperature thermomechanical treatment on the fine structure of spring steel

SOURCE: Ref. zh. Metallurgiya, Abs. 4I499

REF SOURCE: Sb. Metallovedeniye i term. obrabotka met. Minsk, Nauka i tekhnika, 1965, 197-201

TOPIC TAGS: thermomechanical property, fine structure, hot working, metal deformation / 55S2 steel, 50KhG steel

TRANSLATION: A study was made of 55S2 steel of the following composition (wt %): C--0.55, Mn--0.72, Si--1.8, Cr--0.15 and 50KhG steel of the following composition (wt%): C--0.53, Mn--0.8, Si--0.2, Cr--1.1. Mechanical properties were determined in samples previously subjected to thermomechanical treatment: heating to 950-970°C (55S2 steel) and 900-920°C (50KhG steel), deforming by rolling with deformations of 5, 15, 25 and 40%, oil quenching (within 6-8 sec after hot working) and tempering at 200, 300, 400°C for 1 hr and 460°C for 30 min. Stable properties were obtained after 15-20% compressive deformation and tempering 300-400°C for 1 hr. After tempering at 300°C, σ_b was kg/mm² (55S2 steel) and 204 kg/mm² (50KhG steel), which is higher than σ_b after or-

UDC: 669.15.018.294

ACC NR: AR0

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kg/mm² (50KhG steel)
spectively; a δ of 45
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mobile leaf springs incre
V. Olenicheva.

SUB CODE: 11,13

Card 2/2

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...RDP86-00513R001755010001-1"

~~9 (2, 3)~~ 9.3240

AUTHORS: Dement'yev, Ye.P., Taratuta, A.S.

TITLE: One Method of Analyzing the Noise Properties of Amplifier Stages

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1959, Nr 1, pp 176-181

ABSTRACT: The authors describe a method of changing the equivalent circuits of noisy four-poles, essentially simplifying the analysis of the noise properties of amplifier stages by transferring the so-called "noise current generators" from one circuit to another one, without changing the external characteristics of a four-pole. Ye.P. Dement'yev established [Ref 1] that three independent "current generators" are required for characterizing completely the noise properties of an amplifier stage. In [Ref 1] he described a method of "current generator" transfer and this paper is a further development of this method. The method establishes the connection between the equivalent circuit dia-

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One Method of Analyzing the Noise Properties of Amplifier Stages

grams of amplifier stages with three independent noise sources, shown in Fig 1, and with two intercorrelating noise sources, shown in Fig 2. Simultaneously, the method will solve the problem of the degree of correlation between the "current generators" $I_{w'1}$ and $I_{w'3}$. It is important to account for the phase relations between the conditionally positive directions of the "current generators"; a practical method is given for this purpose. The authors formulate a general rule for exchanging any "current generator", connected to any terminal of a four-pole, by two equivalent "current generators", connected between other terminals of that four-pole. For transferring a "current generator" from one terminal pair to two other terminals of a four-pole without disturbing the equality of output effects, the particular "current generator" must be short-circuited, thus the short circuit current passes thru those terminal pairs to which the "current generator" is to be

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One Method of Analyzing the Noise Properties of Amplifier Stages

transferred. Then, the "current generator" to be transferred is removed from the circuit diagram, replacing the short circuit currents between two pairs of given terminals by "current generators", equal in value to the short circuit current but having its reversed sign. There are 13 circuit diagrams and 1 Russian reference.

ASSOCIATION: Kafedra radiopriyemnykh ustroystv Leningradskogo elektrotekhnicheskogo instituta (Chair of Radio Receivers of the Leningrad Electrical Engineering Institute)

SUBMITTED: September 16, 1958

4

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TARATUTA, A.S.

Shot effects of real p-n junctions. Radiotekh. i elektron. 9 no.9:1729-1731 S '64. (MIRA 17:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

GERASIMOV, Serhey Mikhaylovich [Herasymov, S.M.], prof.;
TARATUTA, A.S., kand. tekhn. nauk, retsenzent;
SVECHNIKOV, S.M., kand. tekhn. nauk, red.

[Transistor generators] Tranzystorni generat[illegible]. Kyiv,
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TARATUTA, A.S.

Method for predicting the life of semiconductor devices. Radiotekh. i elektron. 10 no.12:2257-2259 D '65. (MIRA 19:1)

1. Submitted December 11, 1964.

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LEVASHOV, V.,(Krasnodarskiy kray); POLESHKO, S.,(Krasnodarskiy kray); TARATUTA, F.,(Krasnodarskiy kray).

Good initiative ("Brief laboratory manual of organic chemistry".) [professor] M.P. Piatnitskii, B.A. Nesterenko. Reviewed by V. Levashov, S. Poleshko, F. Taratuta. Khim. v shkole 10 no.3:69-71 My-Je '55. (MIRA 8:8)
(Chemistry, Organic--Laboratory manuals)
(Piatnitskii, M.P.) (Nesterenko, B.A.)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATUTA, K.; KONIUCHOWA, Z.

"Preventive Measures Against the Perforation of Textiles. Tr. from the Russian." p. 52, (ODZIEZ, Vol. 5, No. 3, Mar. 1954. Lodz, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
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KUKLIN, B.K., inzh.; Prinimali uchastiye: TARATUTA, N.K., gornyy inzh.; ZEL'VYANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; FILIMONOV, A.F., gornyy inzh. SOCHINSKIY, V.P., otv.red.; KHODNEVA, I.V., red.izd-va; IL'INSKAYA, G.M., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Selection of mining systems for flat Donets Basin seams] Vybor sistem razrabotki dlia pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 194 p. (MIRA 14:4)

(Donets Basin--Coal mines and mining)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
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KUKLIN, B.K.; prinimali uchastiye: ZEL'VIANSKIY, A.Sh., gornyy inzh.; BAKHTIN, A.F., gornyy inzh.; FILIMONOV, A.F., gornyy inzh.; TARATUTA, N.K., gornyy inzh.; BONDARENKO, Ye.D., gornyy inzh.; MEYEN-BURG, V.Ye., kand. tekhn. nauk, otv. red.; NURMUKHAMEDOVA, V.F., red. izd-va; LOMILINA, L.N., tekhn. red.

[Analyzing the methods of mining flat seams in the Donets Basin] Analiz sistem razrabotki pologikh plastov Donbassa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 415 p. (MIRA 14:6)

(Donets Basin--Coal mines and mining)

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

AZRIKAN, D.; TARATUTA, R.

Design of fluid meter indicators. Tekh. sat. 2 no.9:12-13 S '65. (MIRA 18:11)

1. Spetsial'noye konstruktorskoye byuro Neftekhimpribor.

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

ACC NR: AP6035931 (A) SOURCE CODE: UR/0413/66/000/020/0195/0195

INVENTOR: Kiyasbeyli, A. Sh.; Taratuta, R. N.; Nersesov, G. A.; Arutyunov, L. A.; Krems, Ye. F.; Arutyunov, A. A.; Tsabkevich, E. R.; Agabekov, N. G.

ORG: none

TITLE: Dual-action vane pump. Class 59, No. 187530 [announced by the Special Design Bureau "Neftekhimpribor" (Spetsial'noye konstruktorskoye byuro "Neftekhimpribor")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 195

TOPIC TAGS: pump, fluid pump, vane pump, ROTOR BLADE

ABSTRACT: An Author Certificate has been issued for a dual-action vane pump containing a rotor in which blades are mounted in radial grooves. These slide along the inner surface of the stator, the profile of which is formed by two arcs described from the center of the rotor and having various radii, and between them is located a curved crossover section. To reduce inertia, the crossover section is made in accordance with a curve determined by the equation

$$y = \frac{h}{10}\left(2 + 6\frac{\theta}{\beta} - 2\cos\frac{\pi\theta}{\beta} - \frac{3}{\pi}\sin\frac{2\pi\theta}{\beta}\right),$$

Card 1/2 UDC: 621.662.4

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ACC NR: AP6035931

where y is the blade-displacement value depending on angle 0, θ is the flow angle (which changes from 0 to β, β is an angle taking in the entire guide curve, and h is the maximal (given) working-blade-displacement value, which is equal to the difference between the radii of the outer and inner arcs of the stator profile. Orig. art. has: 1 figure. [KT]
[WA-98]

SUB CODE: 13/ SUBM DATE: 21Jun65

Card 2/2

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATUTA, K.N.

ABRAMOV, M.A.; ALIVERDIZADE, K.S.; AMIROV, Ye.M.; ARENSON, R.I.; ARSEN'YEV, S.I.; BAGDASAROV, R.M.; BAGDASAROV, G.A.; BADAMYANTS, A.A.; DANIYELYAN, G.N.; DZHAFAROV, A.A.; KAZAK, A.S.; KERCHENSKIY, M.M.; KONYUKHOV, S.I.; KRASNOBAYEV, A.V.; KURKOVSKIY, A.I.; LALAZAROV, G.S.; LARIONOV, Ye.P.; LISTENGARTEN, M.Ye.; LIVSHITS, B.L.; LISIKYAN, K.A.; LOGINOVSKIY, V.I.; LYSENKOVSKIY, P.S.; MOLCHANOV, G.V.; MAYDEL'MAN, N.M.; OKHON'KO, S.K.; ROMANIKHIN, V.A.; ROSIN, I.I.; RUSTAMOV, E.M.; SARKISOV, R.T.; SKRYPNIK, P.I.; SOBOLEV, N.A.; TARATUTA, R.N.; TVOROGOVA, L.M.; TER-GRIGORYAN, A.I.; USACHEV, V.I.; FAYN, B.P.; CHICHEROV, L.G.; SHAPIRO, Z.L.; SHEVCHUK, Yu.I.; TSUDIK, A.A.; ABUGOV, P.M., red.; MARTYNOVA, M.P., vedushchiy red.; DANIYELYAN, A.A.; TROFIMOV, A.V., tekhn.red.

[Oil field equipment; in six volumes] Neftianoe oborudovanie; v shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.3. [Petroleum production equipment] Oborudovanie i instrument dlia dobychi nefti. 1960. 183 p. (MIRA 13:4)

(Oil fields--Equipment and supplies)

...0010001-1
...-00513R001755010001-1"

AID P - 4953

Subject : USSR/Engineering

Card 1/ Pub. 110-a - 2/21

Authors : Kostrikin, Yu. M., Yu. O. Novi, K. A. Rakov, Kandidats of Tech. Sci., G. I. Aleynikov, N. V. Bulgakova, V. A. Taratuta, Engineers.

Title : Results of thermal and chemical tests of a once-through boiler of 215 and 300 atmospheres.

Periodical : Teploenergetika, 3 - 8, 10-13, Ag 1956

Abstract : Data are given on the quality of steam supplied by an once-through boiler operating at 215 and 300 atmospheres. The boiler is fed by the turbine condensate mixed with the cooling calcium-bicarbonate water. The design and performance of boilers of near critical and super critical pressures are discussed, and various related problems are examined. 4 diagrams. 3 references.

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Teploenergetika, 8, 10-13, Ag 1956 AID P - 4953

Card 2/2 Pub. 110-a - 2/21

Institution : VTI (All-Union Heat Engineering Institute) and TsKTI (Central Institute for Boilers and Turbines), Moscow Branch.

Submitted : No date

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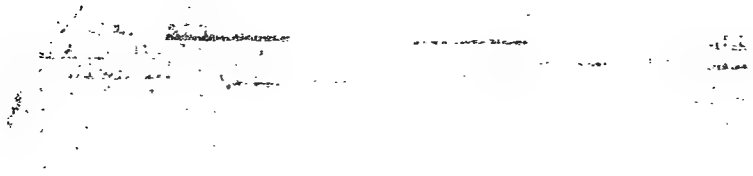

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TARATUTA, V. A.

SOV/96-58-5-9/27

AUTHORS: Korovin, V.A., Engineer, Kostrinkin, Yu.M., Candidate of Technical Sciences and Taratuta, V.A., Solov'yeva, V.P., Engineers

TITLE: A Spectro-photometric Method of Controlling the Water Conditions in Thermal-power Equipment (Spektrofotometricheskiy metod kontrolya vodnogo rezhima v teplosilovom khozyaystve)

PERIODICAL: Teploenergetika, 1958, Nr 5, pp 46 - 49 (USSR)

ABSTRACT: At present two methods are used to determine the salt content of steam and condensate; one is by ionic analysis and the other by measurement of electrical conductivity. The disadvantages of these methods are described and the use of spectro-photometer is recommended. The technique for the determination of elements such as sodium, potassium and calcium is indicated in general terms.
The article then describes a simple flame spectro-photometer installation assembled at the All-Union Thermo-technical Institute. It can be made up in any power-station laboratory. The equipment is illustrated diagrammatically in Figure 1; its construction and method of operation are described. It was used to determine sodium in solution at concentrations ranging

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A Spectro-photometric Method of Controlling the Water Conditions in Thermal-power Equipment

from 0.1 mg/litre to some hundreds of milligrams per litre. A special three-channel burner was used; it is illustrated in Figure 2. Detailed operating instructions for the instrument are then given, including calibration with standard solution and the method of working out the results.
The entire process of determining sodium content in samples, for example, in acid concentrations or in other liquids, can be completed in 5 - 10 minutes, including the time necessary to plot the graphs. The accuracy is of the order of ± 5%, similar to that of a good photo-calorimeter.
There are 2 figures and 4 Soviet references.

ASSOCIATION: VTI

Card 2/2 1. Heat engines--Water supply 2. Feed water--Purification
3. Feed water--Analysis 4. Spectrophotometers--Applications

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

SOV/96-59-8-4/27

AUTHOR: Taratuta, V.A., Engineer

TITLE: A Procedure for Determining Sodium Ferrite

PERIODICAL: Teploenergetika 1959, Nr 8, pp 11-14 (USSR)

ABSTRACT: In 1949-50 whilst testing high pressure once-through boilers the All-Union Thermo-Technical Institute obtained evidence of caustic-soda deposits on the heating surfaces. As it is not possible for caustic soda to occur in solid form in the presence of steam it was suggested that a chemical compound was being formed between the caustic soda and iron oxides of the form of $2NaFeO_2$. With the introduction of flame spectrophotometry it became possible to determine accurately small concentrations of sodium and it was discovered in a power station of the Moscow System that caustic soda deposition occurs even when its concentration in the feed water is very small. Caustic soda commonly occurs in the feed water of once-through boilers and so it was decided to study the subject. After consideration of published work it was decided to investigate

Card 1/3

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A Procedure for Determining Sodium Ferrite

the reaction between anhydrous sodium carbonate and iron oxide. The substances were mixed in a stainless steel vessel and heated, and the sintered product was analysed. The test results are given in Table 1 and it will be seen that there is a chemical reaction involving the evolution of carbon dioxide and the formation of sodium ferrite. The reaction commences at about 700°C and at 900°C it is practically complete in 5 minutes. Excess iron oxide promotes the formation of ferrite. The reaction between iron oxide and caustic soda was also studied in a stainless steel vessel, with the results given in Table 2. Again the experimental procedure is described. In this case the reaction could occur freely at a temperature of 200°C but was not complete at 160°C. Further test results are given in Table 3 and show that excess iron oxide is not a prerequisite of the reaction. Tests were then made to determine the formula of the ferrite formed. The tests are described and the results lead to the conclusion that the composition of the reaction product is $NaFeO_2$, whatever the ratio of caustic soda to iron oxide, the temperature and the duration of sintering. However, it appears from some of

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A Procedure for Determining Sodium Ferrite

the tests that sodium ferrite formed at low temperature is more easily decomposed by cold water than that formed at high temperature, so there are probably two modifications of sodium ferrite. In the light of the above work, a procedure is suggested for the determination of sodium ferrite in the presence of free alkali and iron oxide. In conclusion, it is noted that dry sodium ferrite can be kept in a dessicator over quick lime for quite a long time without fear of decomposition; if free alkali is present the sodium ferrite decomposes more rapidly; and in moist air even pure sodium ferrite decomposes quickly, being half decomposed in 4 to 5 hours. Thus the ferrite may not be detected when boilers and turbines are shut down, because the presence of small quantities of moisture will cause its rapid decomposition into free alkali and iron oxide. There are 1 figure, 3 tables and 2 Soviet references.

ASSOCIATION: MO TsKTI (Moscow Division of the Central Boiler Turbine Institute)

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KEMEL'MAN, M.N.; TARATUTA, V.A.; ESKIN, N.B.

Thermal and chemical testing of an experimental US-2.6/39 once-through type waste-heat boiler. Prom.energ. 16 no.5:3-8 My '61. (MIRA 14:7)

(Boilers—Testing)

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TARATUTA, V.A., elektrosvarshchik

We master new methods of welding. Transp. stroi. 12 no.11:5-6 N '62. (MIRA 15:12)

1. SMP-102 tresta Mostransstroy.
(Concrete reinforcement—Welding)

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MAMET', A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA, V.A., inzh.

Chemical purification of once-through type boilers using trilon B. Elek.sta. 34 no.2:12-16 F '63. (MIRA 16:4)
(Boilers—Cleaning)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

MAMET, A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA, V.A., inzh.

Water cycle norms of once-through type boilers. Teploenergetika 11 no. 1:91-92 Ja '64. (MIRA 17:5)

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KOSHELEV, I.I., kand.tekhn.nauk; ESKIN, N.B., inzh.; TARATUTA, V.A., inzh.; KAPCHITS, D.A., inzh.; ABRYUTINA, N.V., inzh.; POLYAKOVA, V.P., inzh.; LEBEDEVA, I.G., inzh.

Study of salt extraction by the flushing and separating system of the PK-24 boiler. Elek. sta. 35 no. 4:10-15 Ap '64. (MIRA 17:7)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

MAIET, A.F., doktor tekhn. nauk, prof.; ALEYNIKOV, G.I., kand. tekhn. nauk; TARATUTA, V.A., inzh.

Prestart cleaning of an 300Mw. power block. Teploenergetika 12 no.7:26-33 Jl '65. (MIRA 18:7)

1. Moskovskoye otdeleniye TSentral'nogo kotloturbinnogo instituta im. Polzunova.

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TARATUTA, V.N.; BABCHUK, I.V.

There will not be economically weak farms. Zashch. rast. ot vred. i bol. 9 no.1:4-6 '54. (MIRA 17:4)

1. Nachal'nik Khmel'nitskogo proizvodstvennogo kolkhozno-sovkhoznogo upravleniya (for Taratuta). 2. Nachal'nik Vinnitskoy oblastnoy stantsii zashchity rasteniy (for Babchuk).

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TARATUTA, Ye. S.

Acad. Med. Sci. (Mbr., Inst. Hygiene & Prophylaxis of Diseases, -c1949-; Mbr., Inst. General & Communal Hygiene, Dept, Hygiene, Microbiology, & Epidemiology, -c1949-.) Mbr., Moscow Oblast Sanitation & Hygiene Inst., -c1949-. "Hygiene Appraisal of the Decentralized Exhaust Ventilation in Mills Producing Rayon," Gig. i. San., No. 6, 1949.

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NORNEVSKIY, Boris Ivanovich; TARATYNOV, Ivan Afanas'yevich; MURATOV, I.I., red.; VOLCHOK, K.M., tekhn.red.

[Electric power plants and networks for ships] Sudovye elektricheskie stantsii i seti. Leningrad, Izd-vo "Rechnoi transport," 1958. 267 p. (MIRA 11:12)

(Electricity on ships)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1
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TARATYNOV, I. A., inzh.

Economically effective electric current density in electric networks on ships. Izv. LETI 59 no.46:157-168 '62.
(MIRA 15:10)

(Electricity on ships)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1"

NORNEVSKIY, Boris Ivanovich; TARATYNOV, Ivan Afanas'yevich [deceased]; MORDOVIN, B.M., prof., retsenzent; PAIN, B.S., dots., retsenzent; MURATOV, I.I., kand. tekhn. nauk, retsenzent; FRIK, A.O., inzh., red.; KAN, P.M., red.

[Electrical equipment of ship and shore stations and substations] Elektricheskoe oborudovanie beregovykh i sudovykh stantsii i podstantsii. Moskva, Transport, 1965. 334 p. (MIRA 18:5)

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TARATYNOV, V., inzhener-sudovoditel'.

From experience acquired in utilizing Professor G.E. Pavlenko's diagram on "Leningrad" type ships. Mor.flot 15 no.12:23-25 D '55. (MLRA 9:3)

(Cargo handling) (Pavlenko, G.E.)

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TARATYNOV, V., kapitan parekheda "Khasan" inzhener-sudoveditel'.

British experimental radar determination chart. Mor.flot.16 no.9:25-26 S '56. (Great Britain--Nautical charts) (MLRA 9:10)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

TARATYNOV, V., inzhener-sudovoditel'.

A flaw in the method of graphic plotting of radar observations.
Mor. flot 17 no.4:10 Ap '57. (MLRA 10:4)

1. Kapitan parokhoda "Khasan".
(Radar in navigation) (Collisions at sea--Prevention)

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TARATYNOV, V.

Anomalies of radar wave propagation. Mor. flot 18 no.2:10-11 F '58.
(MIRA 11:2)

1.Kapitan parokhoda "Khasan."
(Radar in navigation)

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7(7) PHASE I BOOK EXPLOITATION SOV/2070

Taratynov, Vladislav Petrovich, Captain

Ispol'zovaniye RLS dlya raskhozhdeniya sudov (Use of RLS [Radar] for the Separation of Ships) Leningrad, Izd-vo "Morskoy transport," 1959. 67 p. Errata slip inserted 6,000 copies printed.

Special Ed.: V. I. Shchegolev; Ed. of Publishing House: Z. S. Frishman; Tech. Ed.: O.I. Kotlyakova.

PURPOSE: This book is intended for specialists in marine navigation.

COVERAGE: The book describes the fundamentals of radar observation and interferences occurring in the process. It discusses methods of determining the elements of movement of converging ships and methods of separation. The book is based on Soviet and non-Soviet sources and on the author's experience in radar operation. The author thanks V. I. Shchegulev, scientific staff-worker at TsNIIMF, for help in reviewing the manuscript. There are 8 references: 3 Soviet (including 1 translation), 4 English, and 1 German.

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Use of RLS [Radar] (Cont.) SOV/2070

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AVAILABLE: Library of Congress

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TARATYNOV, V., kapitan dal'nego plavaniya

Steps to be taken by captains in reporting damage to ships in foreign harbors. Mor.flot. 20 no.8:19-20 Ag '60. (MIRA 13:8)

1. Baltiyskoye parokhodstvo.
(Ship handling) (Marine accidents)

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TARATYNOV, V., kapitan dal'nego plavaniya

Proposed rules of navigation in the English Channel. Mor. flot 21 no.4:42-43 Ap '61. (MIRA 14:4)
(English Channel--Navigation)
(Collisions at sea--Prevention)

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TARATYNOV, V.

Regulating navigation on the sea routes of Northwestern Europe. Mor.flot 22 no.12:23-25 D '62. (MIRA 15:12)

1. Kapitan teplokhoda "Krasnograd".
(British Channel--Rule of the road at sea)
(North Sea--Rule of the road at sea)

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E073/E135

AUTHORS: Bogulyubov, V.A., Nagovitsyn, V.V., Taratynov, V.P., Teymer, D.A., and Filyand, M.A.

TITLE: Stainless free cutting steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.11, 1961, 41-43

TEXT: Machining of the steel 1Х18Н9 (1Kh18N9) can be effectively improved by introducing 0.20-0.40% S. However, a content of over 0.20% S brings about a deterioration in the hot-working properties of the material. This difficulty can be largely overcome if the sulphur is added in the form of sulphides of zirconium or molybdenum. However, the presence of sulphur will always reduce the plasticity and the resistance-to-corrosion of the material. The machinability of stainless steel can also be improved by introducing selenium. A content of 0.15-0.30% Se has no appreciable influence on the mechanical properties of chromium-nickel stainless steel; the elongation, contraction and impact strength are higher than in the case of adding S; the decrease in the resistance-to-corrosion is insignificant. Since Se cannot

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Stainless free cutting steel

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E073/E135

be used in its pure form, experiments have been made to find Se-containing master alloys which would enable obtaining the required Se content, without generating excessively poisonous substances during the process of melting. The experiments were carried out in high-frequency furnaces of 35-50 kg and 0.5-1.5-ton capacity and in a 1.5-ton capacity arc furnace. It was found that Se-containing steel should be produced in high-frequency furnaces with acidic linings since in these the amount of selenium oxide generated is 5-10 times lower than in basically-lined furnaces (the selenium contamination of the air was evaluated by V.P. Yershov of the Institut gigiyeny truda i profzabolevaniy AMN SSSR (Institute of Hygiene and Industrial Diseases of AMN USSR). The selenium-generation from arc furnaces is higher. The iron-base master alloy should contain 20-25% Se; if the Se content is higher its evaporation increases appreciably. Forming of the steel was without special difficulty, the initial forging temperature being 1150-1180 °C and the final one 900 °C. The thus-obtained blanks were hot-rolled to 6.5 mm and 4.5 - 4 mm strip for further cold-rolling. The hot-rolled strip was quenched from

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Stainless free cutting steel

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1050 °C in running water; the Se and S contents did not affect the hardness of the metal after heat-treatment. The machinability and the corrosion-resistance were also tested and comparative tests were made on steel containing S additions. It was found that additions of S or Se to the steel under investigation improved its machinability so that it approaches that of carbon steels. It was also found that additions of S did reduce the resistance-to-corrosion of the material. Addition of Se in a quantity greater than 0.15-0.30% reduces the corrosion-resistance of this steel on exposure to a hot and humid climate, an atmosphere which is contaminated by sulphurous gases, human perspiration and sea mist. There are 2 figures.

ASSOCIATION: TsNIIChM

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TARATY'NOV, V. P.,

"Improvement of the physical and mechanical properties of Fe-base, Co-base, or Ni-base alloys."

report presented at the Conf. on New Trends in the Study and Applications of Rare Earth Metals, Moscow, 18-20 Mar 63

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L 17451-63 EWP(q)/EWT(m)/BDS AFFTC/ASD RDW/JD S/0130/63/000/008/0

62
61

ACCESSION NR: AP3004580

AUTHORS: Nagovitsin, V. V.; Taraty*nov, V. P.

TITLE: Technology of smelting stainless selenium-containing automatic steel

SOURCE: Metallurg, 6, no. 8, 1963, 15-16 27

TOPIC TAGS: automatic steel, stainless steel, selenium steel, ferroselenium, selenium, rolled selenium steel

ABSTRACT: The technology of smelting stainless, selenium-containing automatic steel was developed to insure a minimum vaporization of the highly toxic selenium and its compounds in work installations. The laboratory studies were conducted jointly by TsNIIchermet and by Institut gigiyeny* truda i profzabolevaniy Akademii meditsinskikh nauk SSSR (Institute of Occupational Diseases, Academy of Medical Sciences, SSSR). It was subsequently tested in the "Electrostal'" and Chelyabinsk plants. The first step in the process consists in the preparation of a ferroselen alloy, which is achieved by sintering at 800-950C in a well-ventilated gas-heated chamber furnace a mixture of 25% powdered selenium and 75% powdered iron in clos 20-kg sheet iron cans. These cans are subsequently dipped in the molten steel acid-lined induction furnaces after the steel has undergone reduction and the s

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L 17451-63

ACCESSION NR: AP3004560

drained off. The ingots of the resulting steel should contain 0.4% selenium. It is claimed that the observation of the enumerated rules results in a hundredfold reduction in vaporization of selenium. Orig. art. has: 1 table.

ASSOCIATION: TsNIIchermet (Central Scientific Research Institute of Ferrous Metallurgy)

SUBMITTED: 00 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

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TARATYNOVA, L. P., Okhotsimskiy, D. Ye. and Eneiev, T. M.

"Determining the Time of Existence ofthe Artificial Earth Satellite and Studying Secular Perturbations of its Orbit."

Paper prepared for the VIII International Astronautical Congress held in Barcelona, 6-12 October 1957.

Incl. No. 4, R-456-57, [redacted] Conf. File.

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

AUTHOR OKHOTSIMSKIY, D.Ye., ENEYEV, T.M., TARATYNOVA, G.P., 53-1a-3/18

TITLE The Determination of the Life of an Artificial Satellite and the Investigation of the Secular Perturbations of its Orbit. (Opredeleniye vremeni sushchestvovaniya iskusstvennogo sputnika i issledovaniye vekovykh vozmushcheniy yego orbity -Russian)

PERIODICAL Uspekhi Fiz.Nauk, 1957, Vol 63, Nr 1a, pp 33 - 50 (U.S.S.R.)

ABSTRACT At heights of from about 100 to 150 km the life of the satellite is short and in the case of low transversal stresses the satellite does not even perform a full revolution. Works existing up to now on the life of artificial satellites use only approximation methods and for the general case do not give a full solution of the problem. Besides, unsubstantiated methods of approximation may lead to essential errors. By means of the method discussed here the life of the satellite can for the general case be computed sufficiently quickly and reliably. This investigation proved the existence of universal dependences between the main parameters of the osculatory ellipse. These relations apply in the case of any satellites and depend only upon the density distribution of the air at increasing height. With the help of the diagrams and tables given here the life of the satellite as well as the change of its orbit parameters with respect to time can be determined quickly. The equations used here were computed bymeans of the electronic rapid computor BESM of the Academy of Science of the U.S.S.R. Because of the hitherto unknown dependence on height of the air density, the numerical results given here are natur-

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The Determination of the Life of an Artificial Satellite and the Investigation of the Secular Perturbations of its Orbit.

ally suited only for temporary orientation. The values recorded by the satellites will make it possible to carry out precise computations.

The dependence of the density of the atmosphere upon height: An approximated formula for this dependence is given.

The equation of motion: The motion of the satellite is determined here by making use of the osculatory orbit elements; the corresponding equations of motion are written down explicitly. This system of equations is then transformed by means of the known celestial-mechanical theorems. Equations for the variable "argument of breadth" u are more suitable for computations than the equations of the true anomaly ϑ.

The method of the determination of the life of an artificial satellite: The authors here investigate the motion of the satellite in the terrestrial atmosphere in the case of a central gravitational field of the earth. The simultaneous motion of the atmosphere together with the daily revolution of the earth is neglected here. The corresponding system of equations is given. The resistance of the atmosphere does not cause secular perturbations of the modal length and the inclination of the orbit. The problem investigated here leads to the integration of a system of two differential equations. Carrying out of integration is discussed. The computations are carried out

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here for the initial height of the apogee h_{a_0} = 1600 km and for initial heights of the perigee 160 km $\leq h_{\pi_0} \leq$ 900 km. The integration of the system of equations was up to the height of 100 km, carried out by the satellite.

The results of computations and their discussion: These results are shown together in a table and are illustrated by a nomogram. This table contains the amounts of v (in $m^3/kg\ sec^2$) as function of the initial values of h_a and h_π as well as the velocities in the perigee at the beginning of the motion of the satellite. During the motion of the satellite the heights of the apogee and perigee decrease monotonously, and h_a decreases more rapidly than h_π. This difference can be very remarkable for long-stretched orbits. The excentricity of the orbit decreases more and more and tends towards zero. The life of the satellite at an increase of the initial height of the perigee increases more quickly than in the case of an increase of the initial height of the apogee. At unchanged heights of the perigee the life of the satellite can be prolonged considerably by increasing the initial height of the apogee. Long-stretched orbits are, in any case, of advantage. The life of the satellite is nearly inversely proportional to the density of the air within the domain of the primary perigee. The times of revolution computed here for some numerical examples amount to several, or even many years.

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The Determination of theLife of an Artificial Satellite 53-1a-3/18
and the Investigation of the Secular Perturbations of its Orbit.

The last chapter deals with the secular perturbations of the orbit parameters of the satellite.
(2 illustrations and 2 tables).

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EMEYEV, T.M., OKHOTSIMSKIY, D.Ye., and TARATYNOVA, G.P.

TARATYNOVA, G.P.

"Determining the Lifetime of an Artificial Earth Satellite and an Investigation of Secular Perturbations of Its Orbit," Uspekhi Fizicheskikh Nauk, Vol. 63, No. 1-2, p. 46, September 1957.

SO: JPRS Report No. 187

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001755010001-1

AUTHOR TARATYNOVA, G.P.

TITLE On the Motion of an Artificial Earth Satellite in the Non-Central Field of Gravitation of the Earth in Face of an Existing Atmospheric Resistance. 53-1a-4/18
(O dvizhenii iskusstvennogo sputnika v netsentral'nom pole tyagoteniya zemli pri nalichii soprotivleniya atmosfery -Russian)

PERIODICAL Uspekhi Fiz.Nauk, 1957, Vol 63, Nr 1a, pp 51 - 58 (U.S.S.R.)

ABSTRACT The present paper discusses the method of computing the motion of an artificial earth satellite in consideration of atmospheric pressure by means of a high-speed numerical computer.On this occasion the motion performed by the atmosphere together with the earth and the deviations of the field of gravitation from the central field are taken into account.The perturbation of the orbit of the satellite by the sun and the moon is disregarded.

The Equation of the perturbed motion of an artificial earth satellite.The method of integration: The author here describes this motion of the earth satellite by means of differential equations for the osculating elements.In addition,there is a differential equation for the dependence of the true anomaly ϑ on time.This system of differential equations is then transformed to the independent variable ϑ. The resulting system of equations then fully determines the motion of the earth satellite.The author next finds formulae for the projection of the acceleration of the force of gravity of the earth on to the radious vector and on to the tangent to the meridian.After

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some computations a system of differential equations is then determined which describes the change of the orbit of the satellite in the course of time. The solution of this system of equations consists of a discrete sequence of values of the oscillation orbital elements. A diagram illustrates the periodic modification of the element p. The solution of this system of equations is reduced to a double integration. The manner how integrations are carried out is discussed in short.

Computation of the Orbit of the artificial satellite. According to the method discussed here the orbit of an artificial satellite was computed as an example by means of the electronic high speed computer of the Academy of Science of the U.S.S.R. The satellite was assumed to have a weight of 1o kg and a diameter of 0.5m. The coefficient of aerodynamic resistance is put equal to 2. For the orbital elements the following initial values are assumed: h_a = 1285 km, h_{π_o} = 32o km, i_o = 45°, ω_o = 9o°, Ω = 129°. (h_a and h_{π_o} denote the initial values of the apogee and perigee respectively). The results of computations are shown in form of a diagram containing curves for the modification p, e (excentricity), ω (angular distance of the perigee from the node), Ω (length of the ascending node), for a duration of 7oo days. The curves for p and e are of oscillatory charac-

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ter. The period of oscillations amounts to about 36 days and agrees with that period in which the oscillating element ω is modified by π. These oscillations are here described as long-period oscillations. They are caused by the following: If the true anomaly ϑ is modified by 2π, the oscillation orbital ellipse itself as well as its orientation in absolute space are modified as well. If ϑ is modified by $2\pi k$ (k=1,2...), the satellite will take up different positions with respect to the equatorial plane. The force caused by the deviation of the field of gravity of the earth will then differ according to breadth. The curves contained in the above diagram make it possible to judge what secular perturbations of the osculating elements of the orbit of the satellite exist (for a certain period of time). In the case of a period of 700 days the secular perturbations of the orbital elements are : $\Delta p = -414$ km, $\Delta e = -0{,}0564$, $\Delta\omega = -3860^{\circ}$. $\Delta\Omega = -3529^{\circ}$. With this orbit the perigee of the osculating ellipse in the course of time changes its position with respect to the equatorial plane. In 700 days the perigee of the osculating ellipses moves 11 times round the earth. The ascending node moves per day about 5° inversely to the direction of the motion of the earth. For the computations discussed here the electronic computer was used only 4 hours.

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On the Motion of an Artificial Earth Satellite in the Non-Central Field of Gravitation of the Earth in Face of an Existing Atmospheric Resistance. 53-1a-4/18

(4 illustrations)

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TARATYNOVA, G.P.,

"The Motion of an Artificial Satellite in the Noncentral Gravitational Field of the Earth in the Presence of Atmospheric Resistance," Uspekhi Fizicheskikh Nauk, Vol. 63, No. 1-2, p. 69, September 1957.

SO: JPRS Report no. 187

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PHASE I BOOK EXPLOITATION SOV/4281

Akademiya nauk SSSR

Iskusstvennyye sputniki zemli, vyp. 4 (Artificial Earth Satellites, No. 4) Moscow, 1960. 205 p. Errata slip inserted. 6,500 copies printed.

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: M.I. Fredkin; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended to disseminate data collected in investigations performed by means of artificial earth satellites.

COVERAGE: The collection consists of 15 articles dealing with scientific data on Soviet artificial earth satellites (AES) and cosmic rockets. The topics discussed include measurements of the density of the upper atmosphere, motion of AES, measurements of micrometeorites and meteoric matter, magnetometric measurements of cosmic rays, electrical potential, and spectrum of positive ions. The collection is part of a series published regularly. References follow each article.

Iatsunskiy, I.M. Determination of the Conditions of Illumination and the Time Intervals in Which the Satellite Remains in Sunlight and in Shadow 35

The article discusses one of the possible methods of determining the conditions of illumination of satellites. The relative motion of the first, second, and third Soviet AES to the earth is briefly analyzed.

Kheyfy, I.M., A.K. Platonov, and R.K. Kazakova. Determining Orbital Parameters of AES According to Ground Measurements 43

An abbreviated method of orbital parameter determination and forecasting of satellite motions is given. The method is based on data from the processing of optical and radiotechnical observations.

Tarasyonova, G.P. Methods of Numerical Solution of Equations in Finite Differences and Their Application to the Calculation of AES Orbits 56

The finite difference method is applied in the calculation of certain problems of celestial mechanics in the solution of systems of nonlinear differential equations determining the motion of AES in larger time intervals.

Lur'ye, A.I. Equation of Disturbed Motion in Kepler's Problem 82

Stanyukovich, K.P. Elements of the Shock Theory of Solid Bodies at High (Cosmic) Velocities 86

The author discusses the problems of shocks of meteorites at high (cosmic) velocity against the surface of a planet. This problem is related to the study of shocks of micrometeorites against the surface of AES

Mirtov, B.A. Meteoric Matter and Some Problems of Geophysics of the Upper Atmospheric Layers 118

The author attempts to connect phenomena occurring in the upper atmosphere with the presence there of particles of meteoric origin traveling at high velocities.

Dolginov, S.Sh., L.N. Thugov, and V.A. Selyutin. Magnetometric Equipment of the Third Soviet AES 135

The working principle and installation of the magnetometric equipment on the AES are described. Characteristics of materials and the stability and precision of operation are discussed.

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